

AdAM: Adaptive Approximate Multiplier for Fault Tolerance in DNN Accelerators

Taheri, Mahdi; Cherezova, Natalia; Nazari, Samira; Azarpeyvand, Ali; Ghasempouri, Tara; Daneshtalab, Masoud; Raik, Jaan; Jenihhin, Maksim IEEE transactions on device and materials reliability 2024 / p. 66-75 : ill <https://doi.org/10.1109/TDMR.2024.3523386>

AdAM: adaptive fault-tolerant approximate multiplier for edge DNN accelerators

Taheri, Mahdi; Cherezova, Natalia; Nazari, Samira; Rafiq, Ahsan; Azarpeyvand, Ali; Ghasempouri, Tara; Daneshtalab, Masoud; Raik, Jaan; Jenihhin, Maksim 2024 IEEE European Test Symposium (ETS): ETS 2024 : May 20-24, 2024, The Hague, Netherlands : proceedings 2024 <https://doi.org/10.1109/ETS61313.2024.10567161> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Aerial imagery terrain classification for long-range autonomous navigation

Hudjakov, Robert; Tamre, Mart Proceedings of International Symposium on Optomechatronic Technologies : ISOT 2009 2009 / p. 88-91 <https://ieeexplore.ieee.org/document/5326104>

Aerial imagery terrain classification for long-range autonomous navigation

Hudjakov, Robert; Tamre, Mart Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [II] 2010 / p. 530-535 : ill

American sign language character recognition using convolutional neural networks

Abdullah, Atesam; Ali, Nisar; Ali, Raja Hashim; Abideen, Zain Ul; Ijaz, Ali Zeeshan; Bais, Abdul 2023 IEEE Canadian Conference on Electrical and Computer Engineering (CCECE) : Regina, SK, Canada, 24-27 September 2023 2023 / p. 165-169 <https://doi.org/10.1109/CCECE58730.2023.10288799>

An enhanced situational awareness of a mission for an autonomous vehicle by multirate control

Astrov, Igor; Pedai, Andrus Proceedings of the 5th WSEAS International Conference on Dynamical Systems and Control : CONTROL'09 : La Laguna, Spain, July 1-3, 2009 2009 / p. 33-39 https://www.researchgate.net/publication/228809791_An_enhanced_situational_awareness_of_a_mission_for_an_autonomous_underwater_vehicle_by_multirate_control

Analysis and improvement of resilience for long short-term memory neural networks

Ahmadilivani, Mohammad Hasan; Raik, Jaan; Daneshtalab, Masoud; Kuusik, Alar 2023 IEEE International Symposium on Defect and Fault Tolerance in VLSI and Nanotechnology Systems (DFT) 2023 / 4 p <https://doi.org/10.1109/DFT59622.2023.10313559>

ANN-LSTM based tool for photovoltaic power forecasting

Zahraoui, Younes; Korõtko, Tarmo; Mekhilef, Saad; Rosin, Argo 2024 4th International Conference on Smart Grid and Renewable Energy (SGRE) : proceedings 2024 / 6 p. : ill <https://doi.org/10.1109/SGRE59715.2024.10428969>

Application of neural networks based ANARX structure to backing up control of a truck-trailer [Electronic resource]

Belikov, Juri; Petlenkov, Eduard; Nõmm, Sven 6th IFAC Symposium on Intelligent Autonomous Vehicles : IFAC IAV 2007 : September 3-5, 2007, Toulouse, France : symposium proceedings CD ROM 2007 / [5] p. [CD-ROM] <https://www.sciencedirect.com/science/article/pii/S147466701634647X>

Applications of artificial neural networks (ANN) to machining process planning

Wang, Kesheng; Lei, Bing; Papstel, Jüri International DAAAM : [DAAAM National Estonia] : proceedings of the 1st International Conference, 25-27th September 1997, Tallinn, Estonia 1997 / p. 95-100: ill

APPRAISER : DNN fault resilience analysis employing approximation errors

Taheri, Mahdi; Ahmadilivani, Mohammad Hasan; Jenihhin, Maksim; Daneshtalab, Masoud; Raik, Jaan 2023 26th International Symposium on Design and Diagnostics of Electronic Circuits and Systems (DDECS) 2023 / p. 124-127 : ill <https://ddec2023.taltech.ee/> <https://doi.org/10.1109/DDECS57882.2023.10139468>

Artificial neural networks and evolutionary algorithms in engineering design

Velsker, Tarmo; Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Karjust, Kristo Journal of achievements in materials and manufacturing engineering 2011 / p. 88-95 : ill

Artificial neural networks and genetic algorithms in engineering design

Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Küttner, Rein; Karjust, Kristo International Conference on Engineering Optimization (EngOpt 2008) : Rio de Janeiro, Brazil, 2008 : conference proceedings 2008 / [11 p] : ill https://www.researchgate.net/publication/253023189_Artificial_neural_networks_and_genetic_algorithms_in_engineering_design

Arvutid pokri või pukki?

Võhandu, Leo Arvutimaailm 1994 / 1, lk. 24

Assessment and Enhancement of Hardware Reliability for Deep Neural Networks = Riistvara töökindluse hindamine ja täiustamine süvanärvivõrkude jaoks

Ahmadilivani, Mohammad Hasan 2025 https://www.ester.ee/record=b5739227*est <https://digikogu.taltech.ee/et/Item/652d50e3-773f-4de5->

Automated neural network model selection algorithm for feedback linearization based control

Vassiljeva, Kristina; Petlenkov, Eduard; Belikov, Juri BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 235-238 : ill

Automated training set size reduction for detection of small and thin objects

Pihlak, Rene; Riid, Andri 12th International Conference on Information Systems and Advanced Technologies "ICISAT 2022" : Intelligent Information, Data Science and Decision Support System 2023 / p. 423-433 https://doi.org/10.1007/978-3-031-25344-7_39
[Conference Proceedings at Scopus](#) [Article at Scopus](#)

Automatic asphalt pavement crack detection and classification using neural networks

Saar, Tõnis; Talvik, Ott BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 345-348 : ill

The bearing faults detection methods for electrical machines — the state of the art

Khan, Muhammad Amir; Asad, Bilal; Kudelina, Karolina; Vaimann, Toomas; Kallaste, Ants Energies 2023 / art. 296
<https://doi.org/10.3390/en16010296> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Camera-LiDAR fusion based object segmentation in adverse weather conditions for autonomous driving

Gu, Junyi; Bellone, Mauro; Lind, Artjom 2024 19th Biennial Baltic Electronics Conference (BEC) 2024
<https://doi.org/10.1109/BEC61458.2024.10737955> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Challenges in using neural networks in safety-critical applications

Forsberg, H.; Linden, Jan; Hjorth, J.; Manefjord, T.; Daneshtalab, Masoud AIAA/IEEE Digital Avionics Systems Conference - Proceedings, 2020 AIAA/IEEE 39th Digital Avionics Systems Conference (DASC), Virtual Conference, October 11-16, 2020 : Proceedings 2020 / 7 p <https://doi.org/10.1109/DASC50938.2020.9256519>

Charge Diagnostics and State Estimation of Battery Energy Storage Systems Through Transformer Models

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants IEEE Access 2025 / p. 17733–17744 : ill <https://doi.org/10.1109/ACCESS.2025.3532858>

Circuit complexity problems of integrated programmable cellular neural networks

Porra, Veikko; Paasio, Ari; Halonen, Kari BEC : Baltic Electronics Conference : proceedings of the 4th Biennial Conference, October 9-14, 1994, Tallinn (Estonia). 2 1994 / p. 411-416: ill https://www.ester.ee/record=b2150914*est

CNN-Transformer Hybrid Model Towards Automated Droplet Image Quality Assessment of Portable Imaging Flow Cytometer

Afrin, Fariha; Ndubuisi Ezechukwu, Dismas; Le Moullec, Yannick; Pardy, Tamas; Rang, Toomas; Koel, Ants IEEE EUROCON 2025 - 21st International Conference on Smart Technologies 2025 / 6 p <https://doi.org/10.1109/EUROCON64445.2025.11073334>

Combined method to visualize and reduce dimensionality of the financial data sets

Kirt, Toomas Databases and information systems : proceedings of the Fifth International Baltic Conference : Baltic DB & IS 2002 : Tallinn, June 3-6, 2002. Vol. 2 2002 / p. 255-262 : ill

Comment on "Solitons in the Heimburg-Jackson model of sound propagation in lipid bilayers are enabled by dispersion of a stiff membrane" by M. Drab et al.

Peets, Tanel; Tamm, Kert; Engelbrecht, Jüri The European physical journal E 2023 / art. 34 <https://doi.org/10.1140/epje/s10189-023-00299-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A compact 16*16 CMOS cellular neural network chip

Paasio, Ari; Dawidziuk, Adam; Porra, Veikko BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 171-174: ill

A comparative analysis of symbolic and deep learning based RDFS materialization

Traagel, Mart; Carneiro Alves de Lima, Bruno Rucy; Cabral Pinheiro, Victor Henrique AICCC '23: Proceedings of the 2023 6th artificial intelligence and cloud computing conference 2023 / p. 60-65 <https://doi.org/10.1145/3639592.3639601>

Composing graph theory and deep neural networks to evaluate SEU type soft error effects

Balakrishnan, Aneesh; Lange, Thomas; Glorieux, Maximilien; Alexandrescu, Dan; Jenihhin, Maksim 9th Mediterranean Conference on Embedded Computing (MECO'2020), Budva, Montenegro, 8-11 June 2020 2020
<https://doi.org/10.1109/MECO49872.2020.9134279>

Constrained intelligent frequency control in an AC Microgrid : an Online reinforcement learning based PID tuning approach

Nosrati, Komeil; Tepljakov, Aleksei; Petlenkov, Eduard; Škiparev, Vjatšeslav; Belikov, Juri; Levron, Yoash 2023 IEEE Power & Energy Society General Meeting (PESGM) 2023 / 5 p. : ill <https://doi.org/10.1109/PESGM52003.2023.10252482>

Convolutional neural networks for false positive reduction of automatically detected cilia in low magnification TEM images

Gupta, Anindya; Suveer, Amit; Lindblad, Joakim; Dragomir, Anca; Sintorn, Ida-Maria; Sladoje, Nataša Image Analysis, 20th Scandinavian Conference, SCIA 2017, Tromsø, Norway, June 12–14, 2017 : proceedings, Part I 2017 / p. 407-418 : ill https://doi.org/10.1007/978-3-319-59126-1_34 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Correction to: Advancing drug–target interaction prediction: a comprehensive graph-based approach integrating knowledge graph embedding and ProtBert pretraining (BMC Bioinformatics, (2023), 24, 1, (488), 10.1186/s12859-023-05593-6)

Djeddi, Warith Eddine; Hermi, Khalil; **Ben Yahia, Sadok;** Diallo, Gayo BMC Bioinformatics 2024 / art. 289 <https://doi.org/10.1186/s12859-024-05905-4> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cost-effective fault tolerance for CNNs using parameter vulnerability based hardening and pruning

Ahmadilivani, Mohammad Hasan; Mousavi, Seyedhamidreza; **Raik, Jaan; Daneshtalab, Masoud; Jenihhin, Maksim** 2024 IEEE 30th International Symposium on On-line Testing and Robust System Design (IOLTS) : IOLTS 2024 : July 03rd-05th 2024, Rennes, Brittany, France 2024 / 7 p <https://doi.org/10.1109/IOLTS60994.2024.10616072> [Article at Scopus](#) [Article at WOS](#)

Custom simplified machine learning algorithms for fault diagnosis in electrical machines

Raja, Hadi Ashraf; Asad, Bilal; Vaimann, Toomas; Kallaste, Ants; Rassõlkin, Anton; Belahcen, Anouar Diagnostika '22 : 2022 International Conference on Diagnostics in Electrical Engineering : Conference proceedings 2022 / 4 p. <https://doi.org/10.1109/Diagnostika55131.2022.9905174>

DASS: Differentiable architecture search for sparse neural networks

Mousavi, Hamid; Loni, Mohammad; Alibeigi, Mina; **Daneshtalab, Masoud** ACM transactions on embedded computing systems 2023 / art. 105, 21 p. : ill <https://doi.org/10.1145/3609385> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Deep Learning methodology for charging management applications in battery cells based on Neural Networks

Zequera, Rolando Antonio Gilbert; Rjabtsikov, Viktor; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants IEEE Transactions on Intelligent Vehicles 2025 / p. 668-682 <https://doi.org/10.1109/TIV.2024.3417216>

Deep padding and alignment strategies for irregular multivariate clinical time series

Bignoumba, Nzamba; Ben Yahia, Sadok; Mellouli, Nedra Procedia Computer Science 2024 / p. 3275 - 3284 <https://doi.org/10.1016/j.procs.2024.09.312> [Conference proceedings at Scopus](#) [Article at Scopus](#)

DeepAxe : a framework for exploration of approximation and reliability trade-offs in DNN accelerators

Taheri, Mahdi; Riazati, Mohamad; **Ahmadilivani, Mohammad Hasan; Jenihhin, Maksim; Daneshtalab, Masoud; Raik, Jaan;** Sjödin, Mikael; Lisper, Björn 2023 24th International Symposium on Quality Electronic Design (ISQED) 2023 / 8 p. : ill <https://doi.org/10.1109/ISQED57927.2023.10129353>

DeepFlexiHLS : Deep Neural Network Flexible High-Level Synthesis Directive Generator

Riazati, Mohammad; **Daneshtalab, Masoud;** Sjödin, Mikael; Lisper, Björn Riazati, M.; Daneshtalab, M.; Sjödin, M.; Lisper, B. 2022 / p. 1-6 <https://doi.org/10.1109/NorCAS57515.2022.9934617>

DeepHLS: A complete toolchain for automatic synthesis of deep neural networks to FPGA

Riazati, Mohammad; Daneshtalab, Masoud; Sjödin, Mikael; Lisper, Björn ICECS 2020 - 27th IEEE International Conference on Electronics, Circuits and Systems, November 23-25, 2020, Virtual Conference : Proceedings 2020 / 4 p <https://doi.org/10.1109/ICECS49266.2020.9294881>

DeepVigor: Vulnerability Value RanGes and FactORs for DNNs' Reliability Assessment

Ahmadilivani, Mohammad Hasan; Taheri, Mahdi; Raik, Jaan; Daneshtalab, Masoud; Jenihhin, Maksim IEEE European Test Symposium (ETS) : Venice, Italy, 22-26 May 2023 : proceedings 2023 / 6 p. : ill <https://doi.org/10.1109/ETS56758.2023.10174133>

DeepVigor+: Scalable and Accurate Semi-Analytical Fault Resilience Analysis for Deep Neural Networks

Ahmadilivani, Mohammad Hasan; Raik, Jaan; Daneshtalab, Masoud; Jenihhin, Maksim arXiv.org 2024 / 14 p. : ill <https://doi.org/10.48550/arXiv.2410.15742>

DenseDisp: Resource-Aware Disparity Map Estimation by Compressing Siamese Neural Architecture

Loni, Mohammad; Zoljodi, Ali; Maier, Daniel; Majd, Amin; **Daneshtalab, Masoud;** Sjödin, Mikael; Juurlink, Ben H.H.; Akbari, Reza 2020 IEEE Congress on Evolutionary Computation (CEC) : conference proceedings 2020 / 8 p <https://doi.org/10.1109/CEC48606.2020.9185611>

Design of car frontal protection system using neural networks and genetic algorithm

Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Velsker, Tarmo Mechanika 2012 / p. 453-460 : ill

Design of performance characteristics on laser treated denim fabric

Mandre, Nele; Plamus, Tiia; Linder, Angelika; Varjas, Toivo; Majak, Jüri; Krumme, Andres The materials science = Medžiagotyra 2023 / 10 p. : ill <https://doi.org/10.5755/j02.ms.33259> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Detection of stellar wakes in the Milky Way: A deep learning approach

Pöder, Sven; Pata, Joosep; Benito, María; Asensio, Isaac Alonso; Vecchia, Claudio Dalla Astronomy and astrophysics 2025 / art. A227 <https://doi.org/10.1051/0004-6361/202451480>

Development and optimisation of production monitoring system = Tootmise monitooringu süsteemi arendus ja optimeerimine

Snatkin, Aleksei 2016 https://www.ester.ee/record=b4576990*est

Development and utilization of synthetic signals for fault diagnostics of electrical machines

Raja, Hadi Ashraf; Kudelina, Karolina; Asad, Bilal; Vaimann, Toomas; Rassõlkin, Anton; Kallaste, Ants IEEE journal of emerging and selected topics in industrial electronics 2024 / 9 p <https://doi.org/10.1109/JESTIE.2024.3395650>

Dynamic output feedback linearization based adaptive control of nonlinear MIMO systems

Petlenkov, Eduard; Belikov, Juri; Nõmm, Sven; Wyrwas, Małgorzata The American Control Conference (ACC2008) : Seattle, Washington, USA, June 11-13, 2008 2008 / p. 3446-3451 <https://ieeexplore.ieee.org/document/4587026>

Early detection of network attacks using deep learning

Ahmad, Tanwir; Truscan, Dragos; Vain, Jüri; Porres, Ivan 2022 IEEE 15th International Conference on Software Testing, Verification and Validation Workshops : ICSTW 2022, 4–13 April 2022, Virtual Event : proceedings 2022 / p. 30-39 <https://doi.org/10.1109/ICSTW55395.2022.00020> <https://arxiv.org/pdf/2201.11628.pdf>

EARLY: a tool for real-time security attack detection

Ahmad, Tanwir; Truscan, Dragos; Vain, Jüri CyberSecurity in a DevOps Environment: From Requirements to Monitoring 2024 / p. 225-251 https://doi.org/10.1007/978-3-031-42212-6_8 [Article at Scopus](#)

ECG classification with event-driven sampling

Saeed, Maryam; Märten, Olev; Larras, Benoit; Frappe, Antoine; John, Deepu; Cardiff, Barry IEEE Access 2024 / p. 25188-25199 <https://doi.org/10.1109/ACCESS.2024.3364115> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effective simulation of dynamic neural network

Strausz, György BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 241-244: ill

An efficient analog convolutional neural network hardware accelerator enabled by a novel memoryless architecture for insect-sized robots

Dadras, Iman; Ahmadilivani, Mohammad Hasan; Banerji, Saoni; Raik, Jaan; Abloo, Alvo 2022 11th International Conference on Modern Circuits and Systems Technologies (MOCASST) : Bremen, Germany : 08-10 June 2022 2022 / p. 1-6 <https://doi.org/10.1109/MOCASST54814.2022.9837551>

Efficient fixed-switching modulated finite control set-model predictive control based on artificial neural networks

Bakeer, Abualkasim Ahmed Ali; Alhasheem, Mohammed; Peyghami, Saeed Applied Sciences (Switzerland) 2022 / art. 3134 <https://doi.org/10.3390/app12063134> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An efficient neural network for the diagnosis of Parkinson's disease using dynamic handwriting analysis

Wang, Xuechao; Nõmm, Sven; Huang, Junqing; Chatzakou, Marianna; Ruzhansky, Michael Extended Abstracts MWCAPDE 2023 : Methusalem Workshop on Classical Analysis and Partial Differential Equations 2024 / p. 97 - 104 https://doi.org/10.1007/978-3-031-41665-1_11 [Article Collection metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Efficient on-device transfer learning using activation memory reduction

Yoosefi, Amin; Mousavi, Hamid; Daneshtalab, Masoud; Kargahi, Mehdi 2023 Eighth International Conference on Fog and Mobile Edge Computing (FMEC) 2023 / p. 210-215 <https://doi.org/10.1109/FMEC59375.2023.10306182>

Efficient topic detection using an adaptive neural network architecture

Ben Yahia, Sadok; Manai, Meriem Advances in Information Systems, Artificial Intelligence and Knowledge Management (ICIKS 2023) 2024 / p. 145-157 https://doi.org/10.1007/978-3-031-51664-1_10 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Energy-efficient operation of linear Delta robots with an artificial intelligence model

Vodovozov, Valery; Raud, Zoja; Petlenkov, Eduard; Semjonova, Natalia 2024 19th Biennial Baltic Electronics Conference

Enhanced Crack Detection in Composite Plates : Integrating Haar Wavelet Transform with Convolutional Neural Networks

Mehrpavar, Marmar; Majak, Jüri; Karjust, Kristo 6th International Conference on Multidisciplinary Design Optimization and Applications (MDOA 2024) 2025 / art. 01008 https://www.e3s-conferences.org/articles/e3sconf/abs/2025/31/e3sconf_mdoa2025_01008/e3sconf_mdoa2025_01008.html <https://doi.org/10.1051/e3sconf/202563101008>

Enhanced decision mechanism for RAN subslicing in management closed control loop

Kulmar, Marika; Müürsepp, Ivo; Alam, Muhammad Mahtab 2023 Eighth International Conference on Fog and Mobile Edge Computing (FMEC) 2023 / p. 175-181 : ill <https://doi.org/10.1109/FMEC59375.2023.10306223>

An enhanced NN-based load frequency control design of MGs : a fractional order modeling method

Škiparev, Vjatšeslav; Nosrati, Komeil; Belikov, Juri; Tepljakov, Aleksei; Petlenkov, Eduard 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227392>

Enhanced situational awareness for AUV's stochastic model by multirate neural control

Astrov, Igor; Pedai, Andrus SysCon 2010 Proceedings : 2010 IEEE International Systems Conference (SysCon 2010), San Diego, California, USA, April 5-8, 2010 2010 / p. 66-70 : ill <https://ieeexplore.ieee.org/document/5482465>

Enhancing Cybersecurity in Marine Vessels : Integrating Artificial Neural Networks with Inertial Navigation Systems for Resilience Against GPS Cyber-Attacks

Gülmez, Yigit Maritime Cybersecurity 2025 / p. 161-178 https://doi.org/10.1007/978-3-031-87290-7_9

Enhancing fault resilience of QNNs by selective neuron splitting

Ahmadilivani, Mohammad Hasan; Taheri, Mahdi; Raik, Jaan; Daneshtalab, Masoud; Jenihhin, Maksim 2023 IEEE 5th International Conference on Artificial Intelligence Circuits and Systems (AICAS) 2023 / 5 p. : ill <https://doi.org/10.1109/AICAS57966.2023.10168633>

Enhancing situational awareness by means of hybrid adaptive neural control of vertical flight in unmanned helicopter [Electronic resource]

Pedai, Andrus; Astrov, Igor ICCAS 2008 CD-ROM proceedings : International Conference on Control, Automation and Systems 2008 (ICCAS 2008, Seoul, Korea, October 14-17, 2008) 2008 / p. 329-332 [CD-ROM] <https://ieeexplore.ieee.org/document/4694666>

Enhancing situational awareness through multirate control of an autonomous underwater vehicle

Astrov, Igor; Pedai, Andrus; Rüstern, Ennu Proceedings of the 2009 IEEE International Conference on Mechatronics and Automation : August 9-12, Changchun, China 2009 / p. 1184-1189 : ill <https://ieeexplore.ieee.org/document/5246459?reload=true&arnumber=5246459>

Enhancing situational awareness through neural regulation of take-off and landing manoeuvres in unmanned helicopter

Astrov, Igor; Pedai, Andrus Recent advances in computational intelligence, man-machine systems and cybernetics : proceedings of 7th WSEAS International Conference on Computational Intelligence, Man-machine Systems and Cybernetics (CIMMACS'08) : Cairo, Egypt, December 29-31, 2008 2008 / p. 29-34 https://www.researchgate.net/publication/228896465_Enhancing_situational_awareness_through_neural_regulation_of_take-off_and_landing_manoeuvres_in_unmanned_helicopter

Ensemble of Tensor Train Decomposition and Quantization Methods for Deep Learning Model Compression

Ademola, Olutosin Ajibola; Petlenkov, Eduard; Leier, Mairo 2022 International Joint Conference on Neural Networks (IJCNN) 2022 <https://doi.org/10.1109/IJCNN55064.2022.9892626> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Evaluating the robustness of ML models to out-of-distribution data through similarity analysis

Lindén, Joakim; Forsberg, Håkan; Daneshtalab, Masoud; Söderquist, Ingemar New Trends in Database and Information Systems; ADBIS 2023 Short Papers, Doctoral Consortium and Workshops: AIDMA, DOING, K-Gals, MADEISD, PeRS, Barcelona, Spain, September 4–7, 2023, Proceedings 2023 / p. 348 - 359 https://doi.org/10.1007/978-3-031-42941-5_30

Evaluation function optimization for the genetic algorithm based tuning of NN-ANARX model structure

Nõmm, Sven; Vassiljeva, Kristina; Petlenkov, Eduard WCCI 2012 : IEEE World Congress on Computational Intelligence : June, 10-15, 2012, Brisbane, Australia 2012 / p. 1682-1688 : ill <https://ieeexplore.ieee.org/document/6252599>

Evaluation of deep neural network compression methods for edge devices using weighted score-based ranking scheme

Ademola, Olutosin Ajibola; Leier, Mairo; Petlenkov, Eduard Sensors 2021 / art. 7529 <https://doi.org/10.3390/s21227529> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Event-driven ECG classification using an open-source, LC-ADC based non-uniformly sampled dataset

Saeed, Maryam; Wang, Qingyuan; **Märtens, Olev**; Larras, Benoit; Frappe, Antoine; Cardiff, Barry; John, Deepu 2021 IEEE International Symposium on Circuits and Systems (ISCAS), Daegu, Korea May 22-28, 2021 : proceedings 2021 / 5 p <https://doi.org/10.1109/ISCAS51556.2021.9401333> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Event-driven ECG classification using functional approximation and Chebyshev polynomials

Saeed, Maryam; **Märtens, Olev**; Larras, Benoit; Frappe, Antoine; John, Deepu; Cardiff, Barry 2022 IEEE Biomedical Circuits and Systems Conference (BioCAS), 13-15 Oct. 2022 2022 / p. 595-599 <https://doi.org/10.1109/BioCAS54905.2022.9948612>

Evolutionary design of the closed loop control on the basis of NN-ANARX model using genetic algorithm

Vassiljeva, Kristina; Petlenkov, Eduard; Nõmm, Sven Neural information processing : 19th International Conference, ICONIP 2012, Doha, Qatar, November 12-15, 2012 : proceedings. Part I 2012 / p. 592-599 : ill https://link.springer.com/chapter/10.1007/978-3-642-34475-6_71

Experimental evaluation and numerical modelling of the quality of photovoltaic modules

Tšukrejev, Pavel; Karjust, Kristo; Majak, Jüri Proceedings of the Estonian Academy of Sciences 2021 / p. 477-483 : ill <https://doi.org/10.3176/proc.2021.4.15> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental measurements and numerical modelling of additively manufactured Fe-Si cores

Stella, Marco; Faba, Antonio; Fulginei, F. Riganti; Quercio, Michele; Scorretti, Riccardo; Bertolini, Vittorio; Sabino, Luis Gustavo; **Tiismus, Hans; Kallaste, Ants**; Cardelli, Ermanno Journal of magnetism and magnetic materials 2024 / art. 171752 <https://doi.org/10.1016/j.jmmm.2024.171752> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Explainable Artificial Intelligence (XAI) techniques for energy and power systems : review, challenges and opportunities

Machlev, Ram; Heistrene, L.; Perl, M.; Levy, K. Y.; **Belikov, Juri**; Mannor, S.; Levron, Yoash Energy and AI 2022 / art. 100169, 13 p. : ill <https://doi.org/10.1016/j.egyai.2022.100169> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Exploration of Activation Fault Reliability in Quantized Systolic Array-Based DNN Accelerators

Taheri, Mahdi; Cherezova, Natalia; Ansari, Mohammad Saeed; **Jenihhin, Maksim**; Mahani, Ali; **Daneshtalab, Masoud; Raik, Jaan** 25th International Symposium on Quality Electronic Design (ISQED) 2024 / 8 p. : ill <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10528372> <https://doi.org/10.1109/ISQED60706.2024.10528372> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Exploratory data analysis based short-term electrical load forecasting : a comprehensive analysis

Javed, Umar; Ijaz, Khalid; **Shabbir, Noman; Kütt, Lauri; Husev, Oleksandr** Energies 2021 / art. 5510 <https://doi.org/10.3390/en14175510> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Exploring the limits of early predictive maintenance in wind turbines applying an anomaly detection technique

Jankauskas, Mindaugas; Serackis, Artūras; Šapurov, Martynas; Pomarnacki, Raimondas; Baskys, Algirdas; Hyunh, Van Khang; **Vaimann, Toomas**; Zakis, Janis Sensors 2023 / art. 5695 <https://doi.org/10.3390/s23125695> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#) [Journal metrics at WOS](#)

FaCT-LSTM : fast and compact ternary architecture for LSTM recurrent neural networks

Mirsalari, Seyed Ahmad; Nazari, Najmeh; Sinaei, Sima; Salehi, Mostafa E.; **Daneshtalab, Masoud** IEEE design & test 2022 / p. 45-53 <https://doi.org/10.1109/MDAT.2021.3070245>

FARMUR: fair adversarial retraining to mitigate unfairness in robustness

Mousavi, Seyed Ali; Mousavi, Hamid; **Daneshtalab, Masoud** Advances in Databases and Information Systems: 27th European Conference, ADBIS 2023, Barcelona, Spain, September 4–7, 2023 : proceedings 2023 / p. 133-145 https://doi.org/10.1007/978-3-031-42914-9_10 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Fault detection and predictive maintenance of electrical machines : perspective chapter

Raja, Hadi Ashraf; Kudelina, Karolina; Asad, Bilal; Vaimann, Toomas New Trends in Electric Machines - Technology and Applications 2022 <https://doi.org/10.5772/intechopen.107167>

FedBranched : leveraging federated learning for anomaly-aware load forecasting in energy networks

Manzoor, Habib Ullah; Khan, Ahsan Raza; Flynn, David; **Alam, Muhammad Mahtab**; Akram, Muhammad; Imran, Muhammad Ali; Zoha, Ahmed Sensors 2023 / art. 3570 <https://doi.org/10.3390/s23073570> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fingerprint recognition for distorted image applications using three-rate hybrid Kohonen neural network

Astrov, Igor; Tatarly, Sergei; Tatarly, Svetlana; **Rüstern, Ennu** Mathematical Methods and Computational Techniques in Research and Education : 7th WSEAS International Conference on Wavelet Analysis and Multirate Systems (WAMUS'07) : Arcachon, France,

Fingerprint recognition for varied degrees of image distortion using three-rate hybrid Kohonen neural network

Astrov, Igor; Tatarly, Sergei; Tatarly, Svetlana Proceedings of 2008 International Conference on Audio, Language and Image Processing (ICALIP 2008 : Shanghai, China, July 7-9, 2008). 1 2008 / p. 363-369 <https://ieeexplore.ieee.org/document/4590098>

Forecasting of wind speed and power through FFNN and CFNN using HPSOBA and MHP SO-BAACs techniques

Ellahi, Manzoor; Usman, Muhammad Rehan; Arif, Waqas; Usman, Hafiz Fuad; Khan, Waheed A.; Satrya, Gandeve Bayu; **Daniel, Kamran; Shabbir, Noman** Electronics 2022 / art. 4193 <https://doi.org/10.3390/electronics11244193> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#) [Article at WOS](#)

FORTUNE: A Negative Memory Overhead Hardware-Agnostic Fault TOLerance TechniqUe in DNNs

Nazari, Samira; **Taheri, Mahdi**; Azarpeyvand, Ali; Afsharchi, Mohsen; **Ghasempouri, Tara**; Herglotz, Christian; **Daneshtalab, Masoud; Jenihhin, Maksim** 2024 IEEE 33rd Asian Test Symposium (ATS) 2024 / p. 1-6 : ill <https://doi.org/10.1109/ATS64447.2024.10915463> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

A 48 by 48 CMOS cellular neural network chip for image processing

Paasio, Ari; Kananen, Asko; Halonen, Kari; Porra, Veikko BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 87-88

Fully-fusible convolutional neural networks for end-to-end fused architecture with FPGA implementation

Dadras, Iman; Seydi, Sakineh; **Ahmadilivani, Mohammad Hasan; Raik, Jaan**; Salehi, Mostafa E. 2023 30th IEEE International Conference on Electronics, Circuits and Systems (ICECS) 2023 / 5 p. <https://doi.org/10.1109/ICECS58634.2023.10382831>

GA based optimization of NN-SANARX model for adaptive control of nonlinear systems

Vassiljeva, Kristina; Petlenkov, Eduard; Belikov, Juri WCCI 2012 : IEEE World Congress on Computational Intelligence : June, 10-15, 2012, Brisbane, Australia 2012 / p. 1674-1681 : ill <https://ieeexplore.ieee.org/document/6252598>

Generative adversarial network and CNN-LSTM based short-term power load forecasting

Liu, Y.; Liang, Z.; Li, X.; **Bakeer, Abualkasim Ahmed Ali** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / p. 1-6 <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227473>

Genetic algorithm based structure identification for feedback control of nonlinear MIMO systems

Vassiljeva, Kristina; Belikov, Juri; Petlenkov, Eduard Lecture notes in computer science 2011 / p. 215-226 : ill https://link.springer.com/chapter/10.1007/978-3-642-23857-4_23

Hardware Trojans for confidence reduction and misclassifications on neural networks

Grailoo, Mahdieh; **Leier, Mairo; Pagliarini, Samuel Nascimento** Proceedings Of The Twenty Third International Symposium On Quality Electronic Design (ISQED 2022) 2022 / art. 180541, p. 230-235 <https://doi.org/10.1109/ISQED54688.2022.9806246>

Harnessing graph neural networks to predict international trade flows

Sellami, Bassem; Ounoughi, Chahinez; Kalvet, Tarmo; Tiits, Marek; Rincon-Yanez, Diego Big Data and Cognitive Computing 2024 / art. 65 <https://doi.org/10.3390/bdcc8060065> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Have artificial neural networks met expectations in drug discovery as implemented in QSAR framework?

Dobchev, Dimitar; Karelson, Mati Expert Opinion on Drug Discovery 2016 / p. 627 - 639 <https://doi.org/10.1080/17460441.2016.1186876> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heterogeneous Approximation of DNN HW Accelerators based on Channels Vulnerability

Cherezova, Natalia; Pappalardo, Salvatore; **Taheri, Mahdi; Ahmadilivani, Mohammad Hasan**; Deveautour, Bastien; Bosio, Alberto; **Raik, Jaan; Jenihhin, Maksim** 2024 IFIP/IEEE 32nd International Conference on Very Large Scale Integration (VLSI-SoC) 2024 / 4 p. : ill <https://doi.org/10.1109/VLSI-SoC62099.2024.10767798> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Hierarhilis-temporaalse mälu printsiip

Tammemäe, Kalle A & A 2007 / 3, lk. 9-19 : ill https://artiklid.elnet.ee/record=b1020789*est

HybridIdriven digital twin modelling framework for an EV propulsion drive system

Ibrahim, Mahmoud; Rassölkin, Anton IET Intelligent Transport Systems 2025 / art. e70099 <https://doi.org/10.1049/itr2.70099> [Scopus](#)

Implementation of transformer model for natural language to SQL query translation

Yalova, Kateryna; Babenko, Mykhailo; Yashyna, Kseniia; **Boyarchuk, Artem** ICyberPhyS 2025 : 2nd International Workshop on Intelligent and CyberPhysical Systems, Khmelnytskyi, Ukraine, July 04, 2025 2025 / p. 72-85 <https://ceur-ws.org/Vol-4013/paper6.pdf> [Scopus](#)

Improving transparency and explainability of deep learning based IoT botnet detection using explainable artificial intelligence (XAI)

Kalakoti, Rajesh; Nömm, Sven; Bahsi, Hayrettdin 22nd IEEE International Conference on Machine Learning and Applications : ICMLA 2023 : 15-17 December 2023, Jacksonville Riverfront, Florida : proceedings (2023) 2023 / p. 595 - 601 <https://doi.org/10.1109/ICMLA58977.2023.00088>

Infotehnoloogia. Sõnastik. Osa 34, Intellektitehnika. Neurovõrgud

Hanson, Vello; Tavast, Arvi; **Kalja, Ahto; Võhandu, Leo** 2001 https://www.ester.ee/record=b1536069*est

An integrated decision support system for the resilience assessment of eastern Baltic Sea coasts

Barzehkar, Mojtaba; Parnell, Kevin Ellis; Soomere, Tarmo CoastGIS 2021 : Sustainable Coastal Management in a Changing World : conference proceedings 2021 / p. 12 <https://www.novia.fi/assets/Projectsites/CoastGIS/CoastGIS-2021-Book-of-Abstracts.pdf>

Intellekt on võime ennustada

Kirt, Toomas Horisont 2006 / 3, lk. 40-43 : ill <https://cs.ioc.ee/excs/popular/kirt-horisont306.pdf>

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](#)

Intelligent virtual environments with assessment of user experiences

Köse, Ahmet; Tepljakov, Aleksei; Petlenkov, Eduard Artificial Intelligence and Soft Computing : 20th International Conference, ICAISC 2021, Virtual Event, June 21–23, 2021 : proceedings, Part I 2021 / p. 463–474 : ill https://doi.org/10.1007/978-3-030-87986-0_41 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

Is Amazon Kinesis data analytics suitable as core for an event processing network model?

Koschel, Arne; **Astrova, Irina**; Pakosch, Anna; Gerner, Christian; Schulze, Christin; Tyca, Matthias Proceedings of the 16th International Conference on Agents and Artificial Intelligence - Volume 3: ICAART, 2024 / p. 1036 - 1043 <https://doi.org/10.5220/0012432800003636> [Conference proceedings at Scopus](#) [Article at Scopus](#)

JÄNES : a NAS framework for ML-based EDA applications

Selg, Hardi; Jenihhin, Maksim; Ellervee, Peeter IEEE International Symposium on Defect and Fault Tolerance in VLSI Systems 2021 <https://doi.org/10.1109/DFT52944.2021.9568321>

Knowledge extraction for fixture design

Portjanski, Leonid; Nekrassov, Grigori 18th International DAAAM Symposium : Intelligent Manufacturing & Automation : Zadar (Croatia), 24-27th October 2007 2007 / ? p <https://go.gale.com/ps/i.do?id=GALE%7CA177174765&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=17269679&p=AONE&sw=w&userGroupName=anon%7E5b283afd&aty=open-web-entry>

Knowledge representation and their applying to fixture design

Nekrassov, Grigori; Portjanski, Leonid Journal of machine engineering 2008 / 4, p. 99-110 : ill <https://bibliotekanauki.pl/articles/1429178>

Kolmogorov-Arnold networks for algorithm design in battery energy storage system applications

Zequera, Rolando Antonio Gilbert; Rassölkin, Anton; Vaimann, Toomas; Kallaste, Ants Energy Reports 2025 / p. 2664-2677 <https://doi.org/10.1016/j.egyri.2025.02.002>

Large-scale commonsense knowledge for default logic reasoning

Järv, Priit; Tammet, Tanel; Verrev, Martin; Draheim, Dirk SN Computer Science 2023 / art. 550 <https://doi.org/10.1007/s42979-023-01963-2> [Journal metrics at Scopus](#) [Article at Scopus](#)

Learning process at development of intelligent environment for computer-aided design using case-base reasoning

Portjanski, Leonid; Nekrassov, Grigori Annals of DAAAM for 2005 & proceedings of the 16th International DAAAM Symposium "Intelligent Manufacturing & Automation : Focus on Young Researches and Scientists" : 19-22nd October 2005, Opatija, Croatia 2005 / p. 313-314 : ill <https://go.gale.com/ps/i.do?id=GALE%7CA176688403&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=17269679&p=AONE&sw=w&userGroupName=anon%7Ed03ee73c&aty=open-web-entry>

Lightweight CNN-based Microfluidic Droplet Classification for Portable Imaging Flow Cytometry

Afrin, Fariha; Le Moullec, Yannick; Pardy, Tamas; Rang, Toomas Proceedings of the Estonian Academy of Sciences 2025 / p. 302-311 <https://doi.org/10.3176/proc.2025.2S.05>

Low-quality fingerprint recognition using three-rate hybrid Kohonen neural network [Electronic resource]

Astrov, Igor; Tatarly, Sergei; Tatarly, Svetlana; **Rüstern, Ennu** Proceedings of the 6th International Conference on Information, Communications and Signal Processing : ICICS 2007 : Singapore, December 10-13, 2007 2007 / [5] p. [CD-ROM] <https://ieeexplore.ieee.org/document/4449586>

Machine learning and deep learning techniques for residential load forecasting : a comparative analysis

Shabbir, Noman; Kütt, Lauri; Raja, Hadi Ashraf; Ahmadihangar, Roya; Rosin, Argo; Husev, Oleksandr 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCon); conference proceedings 2021 / p. 1-5 <https://doi.org/10.1109/RTUCon53541.2021.9711741>

Managing energy consumption of linear delta robots using neural network models

Vodovozov, Valery; Lehtla, Madis; Raud, Zoja; Semjonova, Natalia; Petlenkov, Eduard Energies 2024 / art. 4081 <https://doi.org/10.3390/en17164081> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Matrix Profile based anomaly detection in streaming gait data for fall prevention

Gerazov, Branislav; Hadjieva, Elena; Krivošei, Andrei; Sanchez, Fiorella Ines Soto; Rostovski, Jakob; Kuusik, Alar; Alam, Muhammad Mahtab 2023 30th International Conference on Systems, Signals and Image Processing (IWSSIP) 2023 / p. 1-5 <https://doi.org/10.1109/IWSSIP58668.2023.10180243>

Methods for reliability assessment and enhancement of deep neural networks hardware accelerators =

Süvanärvivõrkude riistvara kiirendite töökindluse hindamine ja täiustamine

Taheri, Mahdi 2025 https://www.ester.ee/record=b5728368*est <https://digikogu.taltech.ee/et/Item/9cf79768-17bc-44ec-a828-e4ccf6cf93f1> <https://doi.org/10.23658/taltech.4/2025>

Microgrid oriented modeling of space heating system based on neural networks

Häring, Tobias; Kull, Tuule Mall; Ahmadihangar, Roya; Rosin, Argo; Thalfeldt, Martin; Biechl, Helmut Journal of building engineering 2021 / art. 103150, 12 p. : ill <https://doi.org/10.1016/j.jobe.2021.103150> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ML-based online design error localization for RISC-V implementations

Selg, Hardi; Jenihhin, Maksim; Ellervee, Peeter; Raik, Jaan 2023 IEEE 29th International Symposium on On-Line Testing and Robust System Design (IOLTS) : IOLTS 2023 : July 3rd-5th, 2023, Platania, Chania (Crete), Greece : proceedings 2023 / 7 p. <https://doi.org/10.1109/IOLTS59296.2023.10224864>

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 systems by dynamic output feedback linearization of neural network based ANARX models

Petlenkov, Eduard Proceedings of the 10th International Conference on Control Automation Robotics & Vision (ICARCV 2008) : Hanoi, Vietnam, December 17-20, 2008 2008 / p. 1119-1123 <https://ieeexplore.ieee.org/document/4795677>

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>

Modeling the toxicity of chemicals to Tetrahymena pyriformis using heuristic multilinear regression and heuristic back-propagation neural networks

Kahn, Iiris; Sild, Sulev; Maran, Uko Journal of chemical information and modeling 2007 / 6, p. 2271-2279 <https://pubs.acs.org/doi/10.1021/ci700231c>

Modelling a new composite from a recycled GFRP

Kers, Jaan; Majak, Jüri Mechanics of composite materials 2008 / 6, p. 623-632 : ill <https://ui.adsabs.harvard.edu/abs/2008MCM....44..623K/abstract>

Modelling of magnetization processes of 3D-Printed Fe-Si components by means of an artificial neural network implemented in a FEM scheme

Stella, Marco; Faba, Antonio; Bertolini, Vittorio; Fulginei, F. Riganti; Sabino, Lorenzo; Tiismus, Hans; Kallaste, Ants; Cardelli, Ermanno 2024 International Conference on Electrical Machines (ICEM) 2024 / 7 p <https://doi.org/10.1109/ICEM60801.2024.10700301>

Modelling of magnetization processes of 3D-printed Fe-Si components by means of an artificial neural network implemented in a Finite Element Scheme

Stella, Marco; Faba, Antonio; Bertolini, Vittorio; Riganti-Fulginei, Francesco; Sabino, Lorenzo; Tiismus, Hans; Kallaste, Ants; Cardelli, Ermanno IEEE Open Journal of the Industrial Electronics Society 2025 / p. 1650-1662 <http://doi.org/10.1109/OJIES.2025.3620857> <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=11202631&tag=1>

Multifrequency testing and diagnosis of analog and mixed signal circuits using neuromorphic classifier

Lantsov, V.; Rudakov, O.; Mosin, S. BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 347-348

Multi-objective machine learning optimization of cylindrical TPMS lattices for bone implants

Rezapourianghahfarokhi, Mansoureh; Cheloe Darabi, Ali; Khoshbin, Mohammadreza; **Hussainova, Irina** Biomimetics 2025 / art. 475 <http://doi.org/10.3390/biomimetics10070475>

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 / 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 predictive controller for enhanced situational awareness [Electronic resource]

Astrov, Igor; Pedai, Andrus 5th International Symposium on Computational Intelligence and Intelligent Informatics (ISCII 2011) : Floriana, Malta, September 15-17, 2011 : proceedings 2011 / p. 47-52 [CD-ROM] <https://ieeexplore.ieee.org/document/6069740>

NESTIMATOR - a neural network based estimator

Ellervee, Peeter 2nd Baltic Summer School on Information Technology and Systems Engineering, 25-28 July 1994, Nelijärve 1994

Neural Architecture Search (NAS) for designing optimal power quality disturbance classifiers

Wang, Qianchao; Kapuza, Itamar; Baimel, Dmitry; **Belikov, Juri**; Levron, Yoash; Machlev, Ram Electric Power Systems Research 2023 / art. 109574 <https://doi.org/10.1016/j.epr.2023.109574> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 / p. 410-415 <https://ieeexplore.ieee.org/document/5410160>

Neural network based estimator to explore the design space at system level

Ellervee, Peeter; Öberg, Johnny; Jantsch, Axel; Hemani, Ahmed BEC : Baltic Electronics Conference : proceedings of the 4th Biennial Conference, October 9-14, 1994, Tallinn (Estonia). 2 1994 / p. 391-396 : ill https://www.eester.ee/record=b2150914*est

Neural network based minimal state-space representation of nonlinear MIMO systems for feedback control

Vassiljeva, Kristina; Petlenkov, Eduard; Belikov, Juri The 11th International Conference Control, Automation, Robotics and Vision : ICARCV 2010 : 7-10 December 2010, Singapore 2010 / p. 2191-2196 https://www.researchgate.net/publication/221144201_Neural_network_based_minimal_state-space_representation_of_nonlinear_MIMO_systems_for_feedback_control

Neural network based system for real-time organ recognition by analysis of sequence of endoscopic images received during surgical operation

Artemšuk, Igor; Petlenkov, Eduard; Miyawaki, F.; **Gladki, A.** BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 349-352 : ill

Neural network control of green energy vehicles with blended braking systems

Vodovozov, Valery; Petlenkov, Eduard; Aksjonov, Andrei; Raud, Zoja Renewable Energy & Power Quality Journal 2021 / p. 344-349 <https://doi.org/10.24084/repqj19.291> [Journal metrics at Scopus](#) [Article at Scopus](#)

Neural network control of vehicles : modeling and simulation

Astrov, Igor 2022 <https://doi.org/10.52305/GXGD6357> https://www.eester.ee/record=b5642329*est

Neural network method to determine the vigilance levels

Tuulik, Viu; Meister, Ants; Raja, Aimur; Lossmann, Eerik Technology and Health Care, Zürich, 1996 1996

Neural network-based model reference control of braking electric vehicles

Vodovozov, Valery; Aksjonov, Andrei; **Petlenkov, Eduard; Raud, Zoja** Energies 2021 / art. 2373 <https://doi.org/10.3390/en14092373> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Neural networks as the tool of knowledge extraction for fixture design

Portjanski, Leonid; Nekrassov, Grigori Annals of DAAAM for 2006 & proceedings of the 17th International DAAAM Symposium "Intelligent Manufacturing & Automation : Focus on Mechatronics and Robotics" : 8-11th November 2006, Vienna, Austria 2006 / p. 315-316

Neural networks based ANARX structure for identification and model based control

Petlenkov, Eduard; Nömm, 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 for control

Vassiljeva, Kristina; Petlenkov, Eduard; Belikov, Juri Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK viienda aastakonverentsi artiklite kogumik : 25.-26. novembril 2011, Nelijärve 2011 / p. 157-160 : ill

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

Neural networks based system for the supervision of therapeutic exercises

Nömm, Sven; Kuusik, Alar; Ovsjanski, Sergei; Malmberg, Ines; Parve, Marko; Orunurm, Lii Neural information processing : 19th International Conference, ICONIP 2012, Doha, Qatar, November 12-15, 2012 : proceedings. Part IV 2012 / p. 364-371 : ill
https://link.springer.com/chapter/10.1007/978-3-642-34478-7_45

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

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 the 26th Chinese Control Conference : July 26-31, 2007, Zhangjiajie, Hunan, China. 4 2007 / p. 138-145 <https://ieeexplore.ieee.org/document/4347185/keywords#keywords>

Noisy voice pattern recognition by three-rate hybrid neural network

Astrov, Igor; Tatarly, S.; Tatarly, S. Advances in electrical and computer engineering 2006 / 2, p. 35-38
<https://aece.ro/abstractplus.php?year=2006&number=2&article=7>

A novel artificial neural networks based automatic adaptive fault detection technique for analog circuits

Petlenkov, Eduard; Jutman, Artur; Nömm, Sven; Ubar, Raimund-Johannes BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 167-170 : ill

Novel Neural Network accelerator architectures for FPGAs = Uudsed närvivõrkude kiirendite arhitektuurid FPGAdele

Kerner, Madis 2024 https://www.ester.ee/record=b5675484*est <https://digikogu.taltech.ee/et/Item/3568fe35-19c3-43e6-9525-73c79371ab13>
<https://doi.org/10.23658/taltech.16/2024>

A novel Taylor series based approach for control computation in NN-ANARX structure based control of nonlinear systems

Belikov, Juri; Vassiljeva, Kristina; Petlenkov, Eduard; Nömm, 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 Novel Vision Transformer for Camera-LiDAR Fusion based Traffic Object Segmentation

Tahves, Toomas; Gu, Junyi; Bellone, Mauro; Sell, Raivo Proceedings of the 17th International Conference on Agents and Artificial Intelligence : Volume 2 2025 / p. 566-573 <https://doi.org/10.5220/0013239000003890>

On antagonism between side-channel security and soft-error reliability in BNN inference engines

Lai, Xinhui; Lange, Thomas; **Balakrishnan, Aneesh;** Alexandrescu, Dan; **Jenihhin, Maksim** IFIP/IEEE 29th International Conference on Very Large Scale Integration (VLSI-SoC) 2021 / p. 1-6 <https://doi.org/10.1109/VLSI-SoC53125.2021.9606981>

On monotone behavior and basin of attraction in cellular neural networks

Mladenov, Valeri M.; Leenaerts, Domine M.W. BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 89-92: ill

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

Optimal tuning of fractional order sliding mode controller for PMSM speed using neural network with reinforcement learning

Zahraoui, Younes; Zaihidee, Fardila M.; Kermadi, Mostefa; Mekhilef, Saad; Alhamrouni, Ibrahim; Seyedmahmoudian, Mehdi; Stojcevski, Alex Energies 2023 / art. 4353 <https://doi.org/10.3390/en16114353> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization of car frontal protection system

Pohlak, Meelis; Majak, Jüri; Eerme, Martin International journal for simulation and multidisciplinary design optimization 2007 / p. 31-37 https://www.researchgate.net/publication/245491476_Optimization_of_car_frontal_protection_system

Optimization of car frontal protection systems

Pohlak, Meelis; Majak, Jüri; Eerme, Martin Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [1] 2008 / p. 123-128 : ill https://www.researchgate.net/publication/245491476_Optimization_of_car_frontal_protection_system

PF-FEDG : an open-source data generator for frequency disturbance event detection with deep-learning reference classifiers

Sun, Zhenglong; Ram, Machlev; Jiang, Chao; Wang, Qianchao; Perl, Michael; **Belikov, Juri**; Levron, Yoash Energy reports 2023 / p. 397-413 <https://doi.org/10.1016/j.egy.2022.11.182> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Pick-and-place operation of linear Delta robots with low energy consumption

Vodovozov, Valery; Lehtla, Madis; Raud, Zoja; Petlenkov, Eduard 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 6 p <https://doi.org/10.1109/RTUCON62997.2024.10830764>

Predicting cargo handling and berthing times in bulk terminals : a neural network approach

Gülmez, Secil; Gülmez, Yigit; Tapaninen, Ulla Pirita Case studies on transport policy 2025 / art. 101351 <https://doi.org/10.1016/j.cstp.2024.101351>

Prediction of cell-penetrating peptides using artificial neural networks

Dobchev, Dimitar A.; Mäger, Imre; Tulp, Indrek; **Karelson, Gunnar; Tamm, Tarmo**; Tamm, Kaido; Jänes, Jaak; Langel, Ülo; **Karelson, Mati** Current computer-aided drug design 2010 / 2, p. 79-89 <https://www.ingentaconnect.com/contentone/ben/cad/2010/00000006/00000002/art00001?crawler=true>

Preliminary results in using attention for increasing attack identification efficiency

Ahmad, Tanwir; Truscan, Dragos; **Vain, Juri** 2023 IEEE 16th International Conference on Software Testing, Verification and Validation Workshops, ICSTW 2023, 16-20 April 2023, Dublin, Ireland, Proceedings 2023 / p. 159 - 164 <https://doi.org/10.1109/ICSTW58534.2023.00038>

Preventing distillation-based attacks on Neural Network IP

Grailoo, Mahdiah; Abideen, Zain Ul; Leier, Mairo; Pagliarini, Samuel Nascimento arXiv.org 2022 / 7 p. : ill <https://doi.org/10.48550/arXiv.2204.00292>

ProAct: Progressive Training for Hybrid Clipped Activation Function to Enhance Resilience of DNNs

Mousavi, Seyedhamidreza; **Ahmadilivani, Mohammad Hasan; Raik, Jaan; Jenihhin, Maksim; Daneshtalab, Masoud** arXiv.org 2024 / 12 p. : ill <https://doi.org/10.48550/arXiv.2406.06313>

A probabilistic synapse with strained MTJs for Spiking Neural Networks

Pagliarini, Samuel Nascimento; Bhui, Sudipta; Isgenc, Mehmet Meric; Biswas, Ayan Kumar; Pileggi, Larry IEEE Transactions on Neural Networks and Learning Systems 2020 / p. 1113-1123 : ill <https://doi.org/10.1109/TNNLS.2019.2917819>

Processing of blurred image by the two-rate hybrid Kohonen neural network

Astrov, Igor; Tatarlõ, Svetlana; **Rüstern, Ennu** Proceedings of 2nd IASTED International Multi-Conference on Automation, Control, and Information Technology - Signal and Image Processing 2005 / p. 30-35

Processing of distorted fingerprints with use of three-rate hybrid kohonen neural networks

Astrov, Igor; Tatarly, S.; Tatarly, S.; **Rüstern, Ennu** Proceedings of the 8th International Conference on Signal Processing : ICSP'06 : Guilin, China, November 16-20, 2006 2006 / p. 2383-2386 <https://ieeexplore.ieee.org/document/4129338>

Processing of distorted fingerprints with use of three-rate hybrid kohonen neural networks [Electronic resource]

Astrov, Igor; Tatarly, S.; Tatarly, S.; **Rüstern, Ennu** Proceedings of the 8th International Conference on Signal Processing : ICSP'06 : Guilin, China, November 16-20, 2006 2006 / [4] p. [CD-ROM] <https://ieeexplore.ieee.org/document/4129338>

Processing of two-dimensional data with use of two-rate Kohonen's neural networks [Electronic resource]

Astrov, Igor; Tatarlõ, Svetlana; **Rüstern, Ennu** IEEE Canadian Conference on Electrical and Computer Engineering 2005 / p. 949-952 [CD-ROM] <https://ieeexplore.ieee.org/document/1557133>

The proposal of countermeasures for deepfake voices on social media considering waveform and text embedding

Yanagi, Yuta; Orihara, Ryohei; **Tahara, Yasuyuki**; Sei, Yuichi; **Alumäe, Tanel; Ohsuga, Akihiko** Annals of emerging technologies in

Prototyping of a machine learning based auxiliary neurostimulation system

Grigorjev, Nikolai; Le Moullec, Yannick; Kuusik, Alar 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 I. <https://doi.org/10.1109/BEC56180.2022.9935607>

QSAR study of pharmacological permeabilities

Karelson, Mati; Karelson, Gunnar; Tamm, Tarmo; Tulp, Indrek; Jänes, Jaak; Tamm, Kaido; Lomaka, Andre; Savtšenko, Deniss; Dobchev, Dimitar Arkivoc 2009 / 2, p. 218-238 : ill <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=04010557f978e40f8e33b61f9570340690f7940e>

QSPR modeling of flash points : an update

Katritzky, Alan R.; Stoyanova-Slavova, Iva B.; Dobchev, Dimitar; Karelson, Mati Journal of molecular graphics and modelling 2007 / 2, p. 529-536 : ill <https://www.sciencedirect.com/science/article/pii/S1093326307000617>

QSPR modeling of UV absorption intensities

Katritzky, Alan R.; Slavov, Svetoslav; Dobchev, Dimitar; Karelson, Mati Journal of computer-aided molecular design 2007 / 7, p. 371-377 https://www.researchgate.net/publication/6272883_QSPR_modeling_of_UV_absorption_intensities

Qualitative detection of illegal drugs (cocaine, heroin and MDMA) in seized street samples based on SFS data and ANN : validation of method

Mazina, Jekaterina; Aleksejev, Valeri; Mkina, Tatjana; Kaljurand, Mihkel; Poryvkina, Larisa Journal of chemometrics 2012 / p. 442-455 : ill https://www.academia.edu/25357220/Qualitative_detection_of_illegal_drugs_cocaine_heroin_and_MDMA_in_seized_street_samples_based_on_SFS_data_and_ANN_validation_of_method

Recognition of the surgeon's motions during endoscopic operation by statistics based algorithm and neural networks based ANARX models

Nõmm, Sven; Petlenkov, Eduard; Vain, Jüri; Belikov, Juri; Miyawaki, Fujio; Yoshimitsu, Kitaro Proceedings of the 17th World Congress The International Federation of Automatic Control : Seoul, Korea, July 6-11, 2008 2008 / p. 14773-14778 <https://www.sciencedirect.com/science/article/pii/S1474667016413662>

Residential load forecasting using recurrent neural networks

Shabbir, Noman; Ahmadiyahangar, Roya; Raja, Hadi Ashraf; Kütt, Lauri; Rosin, Argo 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings 2020 / p. 478-481 : ill <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161565>

Review of methods for estimation of 2D homography

Shvarts, Dmitry; Tamre, Mart 9th International Symposium "Topical problems in the field of electrical and power engineering". Doctoral school of energy and geotechnology. II : Pärnu, Estonia, June 14-19, 2010 2010 / p. 204-208 : ill

RoCo-NAS : robust and compact neural architecture search

Geraeinejad, Vahid; Sinaei, Sima; Modarressi, Mehdi; Daneshtalab, Masoud 2021 International Joint Conference on Neural Networks (IJCNN) : proceedings 2021 / 8 I <https://doi.org/10.1109/IJCNN52387.2021.9534460> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

SAFFIRA: a Framework for Assessing the Reliability of Systolic-Array-Based DNN Accelerators

Taheri, Mahdi; Daneshtalab, Masoud; Raik, Jaan; Jenihhin, Maksim; Pappalardo, Salvatore; Jimenez, Paul; Deveautour, Bastien; Bosio, Alberto 2024 27th International Symposium on Design & Diagnostics of Electronic Circuits & Systems (DDECS) : 03-05 April 2024, Kielce, Poland 2024 / p. 19-24 : ill <https://doi.org/10.1109/DDECS60919.2024.10508925>

Sea level forecasting using deep recurrent neural networks with high-resolution hydrodynamic model

Rajabi-Kiasari, Saeed; Ellmann, Artu; Delpeche-Ellmann, Nicole Camille Applied ocean research 2025 / art. 104496 <https://doi.org/10.1016/j.apor.2025.104496>

Self-organizing map, matrix reordering and multidimensional scaling as alternative and complementary methods in a semantic study

Kirt, Toomas; Liiv, Innar; Vainik, Ene Proceedings of the 2007 International Conference on Artificial Intelligence : ICAI 2007. Volume 1 2007 / p. 385-390 https://www.researchgate.net/publication/220835093_Self-Organizing_Map_Matrix_Reordering_and_Multidimensional_Scaling_as_Alternative_and_Complementary_Methods_in_a_Semantic_Study

Shape classification using hydrodynamic detection via a sparse large-scale 2D-sensitive artificial lateral line

Wolf, Ben J.; Pirih, Primož; Kruusmaa, Maarja; Van Netten, Sietse M. IEEE Access 2020 / p. 11393 - 11404 <https://doi.org/10.1109/ACCESS.2020.2965316> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Short-term PV energy generation forecasting using deep learning

Shabbir, Noman; Ahmadiyahangar, Roya; Rosin, Argo; Astapov, Victor; Kilter, Jako Telematique 2022

Signal processing and machine learning techniques for predictive maintenance of rotor bars in induction machine
Kudelina, Karolina; Raja, Hadi Ashraf; Rjabtšikov, Viktor; Naseer, Muhammad Usman; Vaimann, Toomas; Kallaste, Ants
2023 International Conference on Electrical Drives and Power Electronics (EDPE) 2023 / 7 p. : ill
<https://doi.org/10.1109/EDPE58625.2023.10274030>

Signal spectrum-based machine learning approach for fault prediction and maintenance of electrical machines
Raja, Hadi Ashraf; Kudelina, Karolina; Asad, Bilal; Vaimann, Toomas; Kallaste, Ants; Rassõlkin, Anton; Khang, Huynh Van
Energies 2022 / art. 9507 <https://doi.org/10.3390/en15249507> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#)
[Article at WOS](#)

Simulation of missile autopilot with two-rate hybrid neural network system
Astrov, Igor; Tatarly, Sergei; Tatarly, Svetlana Advances in electrical and computer engineering 2007 / 1, p. 18-22 : ill
https://www.researchgate.net/publication/41391566_Simulation_of_Missile_Autopilot_with_Two-Rate_Hybrid_Neural_Network_System

Simulation of neural network and fuzzy logic hybrid control for two-rate stochastic model of an experimental aircraft
Astrov, Igor; Rüstern, Ennu Proceedings of the Asian Simulation Conference - 5th International Conference on System Simulation and Scientific Computing (ICSC 2002), Shanghai, China, November 3-6, 2002. Vol. 2 2002 / p. 852-856

Simulation of noise-cancelling in the cockpit of an aircraft using two-rate hybrid neural network
Astrov, Igor; Tatarly, Sergei; Tatarly, Svetlana Advances in electrical and computer engineering 2007 / 2, p. 7-10
https://www.researchgate.net/publication/41391551_Simulation_of_Noise-Cancelling_in_the_Cockpit_of_an_Aircraft_Using_Two-Rate_Hybrid_Neural_Network

Simulation of three-rate neural and neuro-fuzzy hybrid control for the multidimensional stochastic model of a fighter aircraft
Astrov, Igor; Pedai, Andrus; Rüstern, Ennu SCI 2004 : the 8th World Multi-Conference on Systemics, Cybernetics and Informatics : July 18-21, 2004, Orlando, Florida, USA. Vol. 8 : proceedings 2004 / p. 351-356

Simulation of three-rate neural network control for stochastic model of a fighter aircraft
Astrov, Igor CCECE 2003 - Canadian Conference on Electrical and Computer Engineering : Toward a Caring and Humane Technology : May 4th to 7th 2003, Montreal, Canada : proceedings. Vol. 3 2003 / p. 1711-1714 : ill

Simulation of two-rate adaptive hybrid control with neural and neuro-fuzzy networks for stochastic model of an experimental aircraft
Astrov, Igor; Pedai, Andrus; Rüstern, Ennu Proceedings of the International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2004) [and] 10th International Conference on Information System Analysis and Synthesis (ISAS 2004) : Orlando, Florida, USA. Vol. 2 2004 / p. 295-300

Simulation of two-rate adaptive hybrid control with neural and neuro-fuzzy networks for stochastic model of missile autopilot
Astrov, Igor; Pedai, Andrus; Rüstern, Ennu WCICA 2004 : Fifth World Congress on Intelligent Control and Automation : June 15-19, 2004, Hangzhou, China : conference proceedings. Vol. 3 2004 / p. 2603-2607 : ill

Simulation of two-rate adaptive neural network and fuzzy logic hybrid control for stochastic model of an experimental aircraft
Astrov, Igor; Pedai, Andrus; Rüstern, Ennu Canadian Conference on Electrical and Computer Engineering 2004 = Conference canadienne en genie electrique et informatique : May 2-5, 2004, Fallsview Sheraton, Niagara Falls, Canada : proceedings. Vol. 1 2004 / p. 125-128 : ill

Simulation of two-rate hybrid control for nonlinear stochastic model of a diesel engine actuator
Astrov, Igor Advances in electrical and computer engineering : journal of the Faculty of Electrical Engineering, Stefan Cel Mare University, Suceava, Romania 2003 / 1(19), p. 72-83 <https://aece.ro/abstractplus.php?year=2003&number=1&article=12>

Simulation of two-rate neural network control for stochastic model of an experimental aircraft
Astrov, Igor; Tatarly, S.; Tatarly, S. Advances in electrical and computer engineering 2006 / 1, p. 75-83
<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=33c1d222839a8b7ec32792cb70adc3812139332a>

Simulation of two-rate neural network control for stochastic model of missile autopilot
Astrov, Igor; Tatarly, S.; Tatarly, S. Proceedings of the 6th WSEAS International Conference on Systems Theory and Scientific Computation : ISTASC'06 : Elounda, Agios Nikolaos, Crete Island, Greece, August 18-20, 2006 2006 / p. 169-174
<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=33c1d222839a8b7ec32792cb70adc3812139332a>

Situational awareness based on neural control of an autonomous helicopter during hovering manoeuvres
Astrov, Igor; Pedai, Andrus Proceedings of 5th International Conference on Electrical and Computer Engineering (ICECE 2008) : Dhaka, Bangladesh, December 20-22, 2008 2008 / p. 857-860 <https://ieeexplore.ieee.org/document/4769331>

Slope-based event-driven feature extraction for cardiac arrhythmia classification

Duforest, Julien; Larras, Benoit; John, Deepu; **Märtens, Olev**; Frappe, Antoine 2021 IEEE Biomedical Circuits and Systems Conference 2021 / 4 | <https://doi.org/10.1109/BioCAS49922.2021.9644957>

Some iterative regularized methods for highly nonlinear least squares problems

Kangro, Inga; Vaarmann, Otu Mathematical modelling and analysis 2009 / 2, p. 179-186
<https://www.tandfonline.com/doi/abs/10.3846/1392-6292.2009.14.179-186>

Some methods of parameter identification for multilayer neural networks

Vaarmann, Otu MODA 68 : 68th Meeting of the Euro Working Group Multiple Criteria Decision Aiding : October 2-3, 2008, Chania, Greece : abstracts and papers 2008 / [5] p

A sophisticated modeling approach for photovoltaic systems in load frequency control

Bakeer, Abualkasim Ahmed Ali; Magdy, Gaber; **Chub, Andrii**; Bevrani, Hassan International journal of electrical power and energy systems 2022 / art. 107330, 12 p. : ill <https://doi.org/10.1016/j.ijepes.2021.107330> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Special session : approximation and fault resiliency of DNN accelerators

Ahmadilivani, Mohammad Hasan; Barbareschi, Mario; Barone, Salvatore; Bosio, Alberto; **Daneshtalab, Masoud**; Torca, Salvatore Della; Gavarini, Gabriele; **Jenihhin, Maksim**; **Raik, Jaan**; **Taheri, Mahdi** 2023 IEEE 41st VLSI Test Symposium (VTS) : proceedings 2023 / 10 p. : ill <https://doi.org/10.1109/VTS56346.2023.10140043> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Special session: in-field ML-assisted intermittent fault localization and management in RISC-V SoCs

Selg, Hardi; **Shibin, Konstantin**; **Tsertov, Anton**; **Jenihhin, Maksim**; **Ellervee, Peeter**; **Raik, Jaan** 2024 IEEE International Symposium on Defect and Fault Tolerance in VLSI and Nanotechnology Systems (DFT) 2024
<https://doi.org/10.1109/DFT63277.2024.10753541> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

State-space control of nonlinear systems identified by ANARX and neural network based SANARX models

Vassiljeva, Kristina; **Petlenkov, Eduard**; **Belikov, Juri** The 2010 International Joint Conference on Neural Networks (IJCNN) : 18-23 July 2010, Barcelona : proceedings 2010 / p. 3816-3823 : ill <https://ieeexplore.ieee.org/document/5596581>

Structural health monitoring on offshore jacket platforms using a novel ensemble deep learning model

Wang, Mengmeng; Incecik, Atila; Tian, Zhe; Zhang, Mingyang; **Kujala, Pentti Jouko Sakari**; Gupta, Munish; Krolczyk, Grzegorz; Li, Zhixiong Ocean engineering 2024 / art. 117510 <https://doi.org/10.1016/j.oceaneng.2024.117510> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Structure identification of NN-ANARX model by genetic algorithm with combined cross-correlation-test based evaluation function

Nömm, Sven; **Vassiljeva, Kristina**; **Belikov, Juri**; **Petlenkov, Eduard** 2011 9th IEEE International Conference on Control and Automation (ICCA) : Santiago, Chile, December 19-21, 2011 : [proceedings] 2011 / p. 65-70 : ill
<https://ieeexplore.ieee.org/document/6137961>

The structure of FET-based negative differential resistance for microwave and neural network applications

Taniloo, Rainer BEC 2002 : proceedings of the 8th Biennial Baltic Electronics Conference : October 6-9, 2002, Tallinn, Estonia 2002 / p. 73-76 : ill

Synthesis and bioassay of improved mosquito repellents predicted from chemical structure

Katritzky, Alan R.; Wang, Zuoquan; Slavov, Svetoslav; Tsikolia, Maia; **Dobchev, Dimitar** Proceedings of the National Academy of Sciences of the United States of America 2008 / 21, p. 7359-7364

A systematic literature review on hardware reliability assessment methods for deep neural networks

Ahmadilivani, Mohammad Hasan; **Taheri, Mahdi**; **Raik, Jaan**; **Daneshtalab, Masoud**; **Jenihhin, Maksim** ACM Computing Surveys 2024 / art. 141, 39 p. : ill <https://doi.org/10.1145/3638242> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Zero-memory-overhead clipping-based fault tolerance for LSTM deep neural networks

Parchekani, Bahram; Nazari, Samira; **Ahmadilivani, Mohammad Hasan**; **Azarpeyvand, Ali**; **Raik, Jaan**; **Ghasempouri, Tara**; **Daneshtalab, Masoud** 37th IEEE International Symposium on Defect and Fault Tolerance in VLSI and Nanotechnology Systems, Harwell, Oxfordshire, Didcot, UK, October 8th - 10th, 2024 2024 / 4 p. : ill <https://doi.org/10.1109/DFT63277.2024.10753533> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

TAS : Ternarized Neural Architecture Search for Resource-Constrained Edge Devices

Loni, Mohammad; Mousavi, Hamid; Riazati, Mohammad; **Daneshtalab, Masoud**; Sjödin, Mikael 2022 Design, Automation & Test in Europe Conference & Exhibition (DATE) : proceedings 2022 / p. 1115-1118 <https://doi.org/10.23919/DATE54114.2022.9774615>

Technology design of composite parts

Karjust, Kristo; Küttner, Rein; Pohlak, Meelis Journal of achievements in materials and manufacturing engineering 2007 / 2, p. 23-26 : ill <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=7a2f5ebd0bd5e7c08ff1cebc18a438a5c89e2231>

Tehisaru aitab disainida iga patsiendi jaoks sobivaid luuimplantaate

novaator.err.ee 2025 <https://novaator.err.ee/1609771677/tehisaru-aitab-disainida-iga-patsiendi-jaoks-sobivaid-luuimplantaate>

The production technology considerations of large composite parts

Karjust, Kristo; Küttner, Rein; Pohlak, Meelis Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [1] 2008 / p. 251-256 : ill https://www.researchgate.net/publication/289439727_The_production_technology_considerations_of_large_composite_parts

The self-organizing maps of Estonian terms of emotion

Kirt, Toomas; Vainik, Ene Proceedings of the 13th Turkish Symposium on Artificial Intelligence and Neural Networks : 10-11 June 2004, Foca, Izmir 2004 / p. 61-67

3DLaneNAS : neural architecture search for accurate and light-weight 3D lane detection

Zoljodi, Ali; Loni, Mohammad; Abadijoui, Sadegh; Alibeigi, Mina; **Daneshtalab, Masoud** Artificial Neural Networks and Machine Learning - ICANN 2022 : proceedings. Part I 2022 / p. 404-415 https://doi.org/10.1007/978-3-031-15919-0_34 [Conference Proceedings at scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

Towards a smarter charging infrastructure : real-time availability forecasting for EVs

Manai, Meriem; **Sellami, Bassem; Ben Yahia, Sadok** Procedia Computer Science 2024 / p. 930 - 939 <https://doi.org/10.1016/j.procs.2024.09.512> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Towards artificial intelligence based automatic adaptive response analyzer for high frequency analog BIST

Petlenkov, Eduard; Jutman, Artur; Nömm, Sven; Ubar, Raimund-Johannes CIMSA 2008 : IEEE International Conference on Computational Intelligence for Measurement Systems and Applications : Istanbul, Turkey, July 14-16, 2008 2008 / p. 99-104 : ill <https://ieeexplore.ieee.org/document/4595841>

TrajectoryNAS: a neural architecture search for trajectory prediction

Sharifi, Ali Asghar; Zoljodi, Ali; **Daneshtalab, Masoud** Sensors 2024 / 15, p. : ill <https://doi.org/10.3390/s24175696> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Triple fixed-point MAC unit for deep learning

Kerner, Madis; Tammemäe, Kalle; Raik, Jaan; Hollstein, Thomas Proceedings of the 2021 Design, Automation & Test in Europe (DATE 2021), 1-5 February 2021 : Virtual Conference 2021 / p. 1404-1407 <https://doi.org/10.23919/DATe51398.2021.9474020>

Using artificial neural networks to predict cell-penetrating compounds

Karelson, Mati; Dobchev, Dimitar Expert opinion drug discovery 2011 / p. 783-796 : ill

Uus tehisintellekt teeb vahet haige ja terve inimese häälal [Võrguväljaanne]

Harrik, Airika novaator.err.ee 2021 / fot [Uus tehisintellekt teeb vahet haige ja terve inimese häälal](https://novaator.err.ee/1609771677/tehisaru-aitab-disainida-iga-patsiendi-jaoks-sobivaid-luuimplantaate)

What do we know about learning - conversations with chatGPT

Henno, Jaak; Jaakkola, Hannu; Mäkeläinen, Jukka 2023 46th ICT and Electronics Convention (MIPRO), May 22-May 26, 2023, Opatija, Croatia : proceedings 2023 / p. 572-577 <https://doi.org/10.23919/MIPRO57284.2023.10159818> <https://ieeexplore.ieee.org/document/10159818>

Where do conceptual spaces come from? An example of the Estonian emotion concepts

Kirt, Toomas; Vainik, Ene The Second Baltic Conference on Human Language Technologies : April 4-5, 2005, Tallinn, Estonia : proceedings 2005 / p. 285-292 : ill https://artiklid.elnet.ee/record=b1018478*est

Viability of zero-shot classification and search of historical photos

Maksimova, Erika; Meimer, Mari-Anna; Piirsalu, Mari; Järv, Priit CHR 2024 : Proceedings of the Computational Humanities Research Conference 2024, Aarhus, Denmark, December 4-6, 2024 2024 / p. 1242-1258 : ill <https://ceur-ws.org/Vol-3834/paper20.pdf> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Virtual inertia control of isolated microgrids using an NN-based VFOPID controller

Škiparev, Vjatseslav; Nosrati, Komeil; Tepljakov, Aleksei; Petlenkov, Eduard; Levron, Yoash; **Belikov, Juri;** Guerrero, Joseph M. IEEE Transactions on sustainable energy 2023 / p. 1558-1568 <https://doi.org/10.1109/TSTE.2023.3237922> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)