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

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://ddecs2023.taltech.ee/ https://doi.org//10.1109/DDECS57882.2023.10139468

Artificial intelligence methods for data based modeling and analysis of complex processes : real life examples [Online resource]
Vassiljeva, Kristina; **Petlenkov, Eduard**; **Vansovitš, Vitali**; **Tepljakov, Aleksei** Proceedings of the 2016 IEEE First International Conference on Data Stream Mining & Processing (DSMP) : Lviv, Ukraine, August 23-27, 2016 2016 / p. 363-368 : ill https://doi.org/10.1109/DSMP.2016.7583579

Assessment of malicious tweets impact on stock market prices
Ishikawa, Tatsuki; **Ben Sassi, Imen**; **Ben Yahia, Sadok** Research Challenges in Information Science : 15th International Conference, RCIS 2021, Limassol, Cyprus, May 11–14, 2021 : proceedings 2021 / p. 330–346 https://doi.org/10.1007/978-3-030-75018-3_22 Conference Proceedings at Scopus Article at Scopus Article at WOS

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

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

Coordinated PI-based frequency deviation control of isolated hybrid microgrid : an online multi-agent tuning approach via reinforcement learning
Nosrati, Komeil; **Tepljakov, Aleksei**; **Petlenkov, Eduard**; Levron, Yoash; **Škiparev, Vjatšeslav**; **Belikov, Juri** 2022 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe) : proceedings 2022 / p. 1-5 : ill https://doi.org/10.1109/ISGT-Europe54678.2022.9960311

Deep Learning methodology for charging management applications in battery cells based on Neural Networks
Zequera, Rolando Antonio Gilbert; **Rjabtšikov, Viktor**; **Rassõlkin, Anton**; **Vaimann, Toomas**; **Kallaste, Ants** IEEE Transactions on Intelligent Vehicles 2025 / p. 668-682 https://doi.org/10.1109/TIV.2024.3417216

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 predictive modeling approach of user behavior in virtual reality based application
Köse, Ahmet; **Tepljakov, Aleksei**; **Petlenkov, Eduard** 2019 27th Mediterranean Conference on Control and Automation (MED) 2019 / p. 57-62 : ill https://doi.org/10.1109/MED.2019.8798521

An efficient FPGA-based architecture for contractive autoencoders
Kerner, Madis; **Tammemäe, Kalle**; **Raik, Jaan**; Hollstein, Thomas 2020 IEEE 28th Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM), 3 – 6 May 2020, Fayetteville, Arkansas : proceedings 2020 / p. 230−230 https://doi.org/10.1109/FCCM48280.2020.00062.

Estimating quality of transmission in a live production network using machine learning
Müller, Jasper; Fehenberger, Tobias; Patri, Sai Kireet; **Kaeval, Kaida**; Griesser, Helmut; Tikas, Marko; Elbers, Jörg-Peter 2021 Optical Fiber Communications Conference and Exhibition (OFC) : 6-10 June 2021 : San Francisco, CA, USA 2021 / paper Tu1G.2, 3 p https://ieeexplore.ieee.org/abstract/document/9489940

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

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

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

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

Kolmogorov-Arnold networks for algorithm design in battery energy storage system applications
Zequera, Rolando Antonio Gilbert; **Rassõlkin, Anton**; **Vaimann, Toomas**; **Kallaste, Ants** Energy Reports 2025 / p. 2664-2677 https://doi.org/10.1016/j.egyr.2025.02.002

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

Machine learning and deep learning techniques for residential load forecasting : a comparative analysis
Shabbir, Noman; **Kütt, Lauri**; **Raja, Hadi Ashraf**; **Ahmadiahangar, 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

Machine learning assisted methodology for multiclass classification of malignant brain tumors
Vidyarthi, Ankit; Agarwal, Ruchi; Gupta, Deepak; **Sharma, Rahul**; **Draheim, Dirk**; Tiwari, Prayag IEEE Access 2022 / p. 50624-50640 https://doi.org/10.1109/ACCESS.2022.3172303 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Methods of condition monitoring and fault detection for electrical machines
Kudelina, Karolina; **Asad, Bilal**; **Vaimann, Toomas**; **Rassõlkin, Anton**; **Kallaste, Ants**; Khang, Huynh Van Energies 2021 / art. 7459, 20 p. : ill https://doi.org/10.3390/en14227459 Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Microfluidic droplet classification through tuned convolutional neural network on a resource constrained platform
Afrin, Fariha; **Le Moullec, Yannick**; **Pardy, Tamas** 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / 4 p https://doi.org/10.1109/BEC61458.2024.10737958 Conference proceedings at Scopus Article at Scopus Article at WOS

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

Neural networks based system for the supervision of therapeutic exercises
Nõmm, 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

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 multi tank liquid-level system
Belikov, Juri; **Petlenkov, Eduard** International journal of computational intelligence systems 2015 / p. 265-277 https://doi.org/10.1080/18756891.2015.1001950 Journal metrics at Scopus Article at Scopus Journal metrtics at WOS Article at WOS

A Novel driver performance model based on machine learning
Aksjonov, Andrei; Nedoma, Pavel; **Vodovozov, Valery**; **Petlenkov, Eduard**; Herrmann, Martin IFAC-PapersOnLine 2018 / p. 267-272 : ill http://dx.doi.org/10.1016/j.ifacol.2018.07.044

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 l. https://doi.org/10.1109/BEC56180.2022.9935607

Residential load forecasting using recurrent neural networks

Shabbir, Noman; **Ahmadiahangar, 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

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 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

Simultaneous road edge and road surface markings detection using convolutional neural networks
Pihlak, Rene; **Riid, Andri** Databases and Information Systems : 14th International Baltic Conference, DB&IS 2020, Tallinn, Estonia, June 16-19, 2020 : Proceedings 2020 / p. 109-121 https://doi.org/10.1007/978-3-030-57672-1_9 Conference proceeding at Scopus Article at Scopus

Speech-based identification of children's gender and age with neural networks
Piel, Leo Kristopher; **Alumäe, Tanel** Human Language Technologies - the Baltic Perspective : Proceedings of the Eighth International Conference, Baltic HLT 2018 2018 / p. 104-111 https://doi.org/10.3233/978-1-61499-912-6-104 Conference proceedings at Scopus Article at Scopus 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 Tolerancein 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

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 computing 2024 / p. 15-31 ill https://doi.org/10.33166/AETiC.2024.02.002 Journal metrics at Scopus Article at Scopus

Trends and challenges in intelligent condition monitoring of electrical machines using machine learning
Kudelina, Karolina; **Vaimann, Toomas**; **Asad, Bilal**; **Rassõlkin, Anton**; **Kallaste, Ants**; **Demidova, Galina** Applied sciences 2021 / art. 2761, 19 p. : ill https://doi.org/10.3390/app11062761 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

Wind energy forecasting using recurrent neural networks
Shabbir, Noman; **Kütt, Lauri**; Jawad, Muhammad; **Ahmadiahangar, Roya**; **Iqbal, Muhammad Naveed**; **Rosin, Argo** 2019 Big Data, Knowledge and Control Systems Engineering (BdKCSE) 2019 / 5 p. : ill https://doi.org/10.1109/BdKCSE48644.2019.9010593

Virtual inertia control of isolated microgrids using an NN-based VFOPID controller
Škiparev, Vjatšeslav; **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