

Activity classification for real-time wearable systems : effect of window length, sampling frequency and number of features on classifier performance

Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert 2016 IEEE EMBS Conference on Biomedical Engineering and Sciences (IECBES) : Kuala Lumpur, 4-8 December 2016 / p. 460-464 : ill
<https://doi.org/10.1109/IECBES.2016.7843493>

Asjade Internet teeb TTÜ kampsust digilinnaku

Leier, Mairo Mente et Manu 2018 / lk. 40-41 : fot https://ttu.ee/public/m/mente-et-manu/MM_02_2018/mobile/index.html#p=3
<http://dea.digar.ee/publication/AKmenteetmanu> http://www.ester.ee/record=b1242496*est https://artiklid.elnet.ee/record=b2862659*est

Autonomous last mile shuttle ISEAUTO for education and research

Sell, Raivo; Leier, Mairo; Rassõlkin, Anton; Ernits, Juhan-Peep International journal of artificial intelligence and machine learning 2020 / p. 18-30 <https://doi.org/10.4018/IJAIML.2020010102>

Classification algorithm improvement for physical activity recognition in maritime environments

Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert World Congress on Medical Physics and Biomedical Engineering 2018 : June 3-8, 2018, Prague, Czech Republic (Vol. 3) 2019 / p. 13-17 https://doi.org/10.1007/978-981-10-9023-3_3 [Conference proceeding](#) [Article at Scopus](#) [Article at WOS](#)

Comparison of predictive equations for basal metabolic rate

Allik, Ardo; Mägi, Siiri; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert Wireless Mobile Communication and Healthcare : 7th International Conference, MobiHealth 2017, Vienna, Austria, November 14-15, 2017 : proceedings 2018 / p. 261-264 : ill <https://doi.org/10.1007/978-3-319-98551-0> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Development case study of the first Estonian self-driving car, ISEAUTO

Rassõlkin, Anton; Sell, Raivo; Leier, Mairo Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2018 / p. 81-88 : ill <https://doi.org/10.2478/ecce-2018-0009>

Edge intelligence resource consumption by UAV-based IR object detection

Polukhin, Andrii; Gordienko, Yuri; Leier, Mairo; Jervan, Gert; Rokovyi, Oleksandr; Alienin, Oleg; Stirenko, Sergii UAVM '23 : proceedings of the 2023 Workshop on UAVs in multimedia : capturing the world from a new perspective 2023 / p. 57-61
<https://doi.org/10.1145/3607834.3616566>

Efficient Deep Learning Model Optimization for Resource Constrained Devices = Tõhus süvaõppe mudeli optimeerimine piiratud ressursidega seadmete jaoks

Ademola, Olutosin Ajibola 2025 https://www.ester.ee/record=b5750529*est <https://digikogu.taltech.ee/et/Item/183f6305-2924-4e30-a7cc-d06ac86581b8> <https://doi.org/10.23658/taltech.37/2025>

Elevator passenger in-cabin behaviour – a study on Smart-Elevator Platform

Basov, Kevin; Robal, Tarmo; Reinsalu, Uljana; Leier, Mairo Digital Business and Intelligent Systems : 15th International Baltic Conference, Baltic DB&IS 2022, Riga, Latvia, July 4-6, 2022 : proceedings 2022 / p. 3-18 : ill https://doi.org/10.1007/978-3-031-09850-5_1 [Conference proceedings at Scopus](#) [Article at Scopus](#)

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](#)

Ensuring reliable wireless data transmission - performance study from field deployment

Leier, Mairo Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK viienda aastakonverentsi artiklite kogumik : 25.-26. novembril 2011, Nelijärve 2011 / p. 151-155 : ill

Environmentally adaptive fish or no-fish classification for river video fish counters using high-performance desktop and embedded hardware

Soom, Jürgen; Pattanaik, Vishwajeet; Leier, Mairo; Tuhtan, Jeffrey Andrew Ecological Informatics 2022 / art. 101817, 14 p. : ill
<https://doi.org/10.1016/j.ecoinf.2022.101817> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Fall detection and activity recognition system for usage in smart work-wear [Online resource]

Leier, Mairo; Jervan, Gert; Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 2018 / 4 p. : ill
<https://doi.org/10.1109/BEC.2018.8600959>

Floor selection proposal for automated travel with smart elevator

Reinsalu, Uljana; Robal, Tarmo; Leier, Mairo Databases and Information Systems : 14th International Baltic Conference, DB&IS 2020, Tallinn, Estonia, June 16-19, 2020 : Proceedings 2020 https://doi.org/10.1007/978-3-030-57672-1_4 [Conference proceeding at Scopus](#) [Article at Scopus](#)

Hardware Trojans for confidence reduction and misclassifications on neural networks

Grailoo, Mahdiah; **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>

Kas sa oled kodus ükski?

Härmat, Karin Mente et Manu 2019 / lk. 22-25 : fot https://www.ester.ee/record=b1242496*est https://www.ttu.ee/public/m/mente-et-manu/MM_01_2019/mobile/index.html

Kuidas DFDS Rotterdami sadamas tehisintellekti abil efektiivsust otsib?

Puusild, Harro logistikauudised.ee 2025 <https://www.logistikauudised.ee/uudised/2025/05/22/kogemus-kuidas-dfds-rotterdami-sadamas-tehisintellekti-abil-efektiivsust-otsib>

Miniaturized wireless monitor for long-term monitoring of newborns

Leier, Mairo; Jervan, Gert BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 193-196 : ill

Motivation-driven learning processes at the example of embedded systems

Hollstein, Thomas; Reinsalu, Uljana; Leier, Mairo 10th European Workshop on Microelectronics Education : EWME 2014 : May 14-16, 2014, Tallinn, Estonia 2014 / p. 3-6 : ill

Open urban mmWave radar and camera vehicle classification dataset for traffic monitoring

Soom, Jürgen; Leier, Mairo; Janson, Karl; Tuhtan, Jeffrey A. IEEE Access 2024 / p. 65128 - 65140 <https://doi.org/10.1109/ACCESS.2024.3397013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization of physical activity recognition for real-time wearable systems : effect of window length, sampling frequency and number of features

Allik, Ardo; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Leier, Mairo; Jervan, Gert Applied sciences 2019 / art. 4833, 14 p. : ill <https://doi.org/10.3390/app9224833> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Practicing start-up culture in teaching embedded systems

Reinsalu, Uljana; Azad, Siavoosh Payandeh; Leier, Mairo; Tammemäe, Kalle; Hollstein, Thomas EWME 2016 : 11th European Workshop on Microelectronics Education : May 11-13, 2016, Southampton, UK 2016 / [6] p. : ill <https://doi.org/10.1109/EWME.2016.7496463>

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>

Pulse wave registration from radial artery using photoplethysmographic method

Pilt, Kristjan; Leier, Mairo; Silluta, Sandra; Kööts, Kristina; Meigas, Kalju; Viigimaa, Margus Conference proceedings : 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society : Milan, Italy, August 25-29 2015 2015 / p. 6425-6428 : ill <https://doi.org/10.1109/EMBC.2015.7319863> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Resource-aware scene text recognition using learned features, quantization, and contour-based character extraction

Ademola, Olutosin Ajibola; Petlenkov, Eduard; Leier, Mairo IEEE Access 2023 / p. 56865 - 56874 <https://doi.org/10.1109/ACCESS.2023.3283931> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Respiration signal extraction from photoplethysmogram using pulse wave amplitude variation

Leier, Mairo; Jervan, Gert Stork, Wilhelm 2014 IEEE International Conference on Communications (ICC) : Sydney, Australia, June 10-14, 2014 2014 / p. 3535-3540 : ill

Scalable open platform for reliable medical sensorics = Laiendatav avatud platvorm usaldusväärsete meditsiiniliste sensorite jaoks

Leier, Mairo 2016 https://www.ester.ee/record=b4575148*est

Self-driving car ISEAUTO for research and education

Sell, Raivo; Leier, Mairo; Rassõlkin, Anton; Ernits, Juhan-Peep Proceedings of the 2018 19th International Conference on Research and Education in Mechatronics : (REM 2018), Delft, The Netherlands, June 7-8, 2018 2018 / p. 111-116 : ill <https://doi.org/10.1109/REM.2018.8421793>

Service quality meter design for self-aware systems

Tammemäe, Kalle; Leier, Mairo AmiES-2015 : Ambient Intelligence and Embedded Systems : International Symposium, 24-26 September, 2015, Oostende, Belgium 2015 / [4] p. : ill

Sleep apnea pre-screening on neonates and children with shoe integrated sensors [Electronic resource]

Leier, Mairo; Jervan, Gert 31st Norchip Conference : Vilnius, Lithuania, 11-12 November 2013 : conference program and papers 2013 / [4] p. : ill [USB]

A small-size sleep apnea pre-screening prototype for neonates and children

Leier, Mairo; Jervan, Gert Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK seitsmenda aastakonverentsi artiklite kogumik : 15.-16. novembril 2013, Haapsalu 2013 / p. 49-52 : ill

Smart elevator with unsupervised learning for visitor profiling and personalised destination prediction

Leier, Mairo; Riid, Andri; Alumäe, Tanel; Pihlak, Rene; Udal, Andres; Heinsar, Risto; Vainküla, Sven 2021 IEEE International Conference on Cognitive and Computational Aspects of Situation Management (CogSIMA) : Virtual Conference, 14-22 May 2021 : proceedings 2021 / p. 9-16 <https://doi.org/10.1109/CogSIMA51574.2021.9475921>

Smart photoplethysmographic sensor for pulse wave registration at different vascular depths

Leier, Mairo; Jervan, Gert; Pilt, Kristjan Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 67-70 : ill

Smart photoplethysmographic sensor for pulse wave registration at different vascular depths

Leier, Mairo; Pilt, Kristjan; Karai, Deniss; Jervan, Gert Conference proceedings : 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society : Milan, Italy, August 25-29 2015 2015 / p. 1849-1852 : ill
<https://doi.org/10.1109/EMBC.2015.7318741> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Startup-üritused Silicon Valleys : [TTÜ tudengid Räniorus]

Leier, Mairo Arvutimaailm 2012 / lk. 8-9 : fot

A study into elevator passenger in-cabin behaviour on a smart-elevator platform

Robal, Tarmo; Basov, Kevin; Reinsalu, Uljana; Leier, Mairo Baltic Journal of Modern Computing 2022 / p. 665-688 : ill
<https://doi.org/10.22364/bjmc.2022.10.4.05> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tallinna Tehnikaülikooli tudengite reis Silicon Valleyisse : [innovaatiliste ärimudelite konkursi Stratos Futuris võitjate auhinnareis]

Leier, Mairo Mente et Manu 2012 / lk. 1, 3, 6 : fot https://www.ester.ee/record=b1242496*est

TalTechi targad liftid jätavad külastajad meelde

Ehitaja 2019 / lk. 9 : fot https://www.ester.ee/record=b1072123*est

Teadlane arutleb : missugused on moodsa kübersõja eetilised aspektid ja kas me suudame ennast kaitsta?

Leier, Mairo digi.geenius.ee 2024 [Teadlane arutleb : missugused on moodsa kübersõja eetilised aspektid ja kas me suudame ennast kaitsta?](#)

The benefits of self-awareness and attention in fog and mist computing

Preden, Jürjo-Sören; Tammemäe, Kalle; Jantsch, Axel; Leier, Mairo; Riid, Andri; Calis, Emine Computer 2015 / p. 37-45 : ill
<https://doi.org/10.1109/MC.2015.207> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Towards personalized elevator travel with smart elevator system

Robal, Tarmo; Reinsalu, Uljana; Leier, Mairo Baltic journal of modern computing 2020 / p. 675-697
<https://doi.org/10.22364/bjmc.2020.8.4.12> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

TTÜ doktorant Mairo Leier: "Ma motiveerin iseennast, tehes seda, mis mulle meeldib."

Leier, Mairo Studioosus 2015 / lk. 8-9 https://www.ester.ee/record=b1558644*est

„Viisin talle isegi tulekindla teki, aga...“ Tulesurmade arv kasvab ehmatava kiirusega

Michelson, Tarmo maaleht.delfi.ee 2024 „Viisin talle isegi tulekindla teki, aga...“ [Tulesurmade arv kasvab ehmatava kiirusega](#)