

Advancing novel physical fatigue assessment and human activity monitoring methods towards personalized feedback with wearable sensors = Kantavatel seadmetel põhinevate füüsilise väsimuse hindamise ning inimese aktiivsuse monitoorimise meetodite arendamine personaalseks tagasisideks

Allik, Ardo 2022 <https://doi.org/10.23658/taltech.62/2022> <https://digikogu.taltech.ee/et/Item/230f302e-0cf1-4b86-a9d3-0927a51b36e2>
https://www.ester.ee/record=b5525012*est

Application of novel QT interval correction and QT/RR assessment models to ECG 24-hour recordings in cardiac patients
Veski, Kristi; Karai, Deniss; Pilt, Kristjan; Meigas, Kalju; Kaik, Jüri Estonian journal of engineering 2010 / 1, p. 107-120 : ill

Assessment of breathing parameters during running with a wearable bioimpedance device

Seppä, Ville-Pekka; Väisänen, Juho; Lahtinen, O.; Hyttinen, J. 4th European Conference of the International Federation for Medical and Biological Engineering : 23-27 November, 2008, Antwerp, Belgium. 9 2009 / p. 1088-1091

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](#)

Communication challenges in on-body and body-to-body wearable wireless networks - a connectivity perspective

Ben Arbia, Dhafer; **Alam, Muhammad Mahtab; Le Moulec, Yannick;** Hamida, Elyes Ben Technologies 2017 / art. 43, p.1-18 : ill
<https://doi.org/10.3390/technologies5030043> [Journal metrics at Scopus Article at Scopus](#)

Coupling and electrodes

Metshein, Margus Bioimpedance and Spectroscopy 2021 / p. 3-50 : ill <https://doi.org/10.1016/B978-0-12-818614-5.00010-2>
<https://ebookcentral.proquest.com/lib/tuee/reader.action?docID=6644985&ppg=48>

Development of an analysis method for the determination of sulfur mustard hydrolysis and oxidation products in seawater by a portable capillary electrophoresis instrument

Jõul, Piia; Kuhtinskaja, Maria; Kaljurand, Mihkel ITP2015/NoSSS2015 : final program and book of abstracts 2015 / p. P-53

Device and method for monitoring bioimpedance of tissue transplants

Anus, Paul; Haldre, Eero; Kuusik, Alar; Land, Raul; Min, Mart; Paavle, Toivo; Parve, Toomas Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 140-143 : ill

Doktoritöö: kuidas luua veelgi nutikamaid pulsikelli ja aktiivsusemonitore?

Elektrala 2023 / lk. 19

ELC-ECG: efficient LSTM cell for ECG classification based on quantized architecture

Mirsalari, Seyed Ahmad; Nazari, Najmeh; Ansarmohammadi, Seyed Ali; Sinaei, Sima; Salehi, Mostafa E.; **Daneshtalab, Masoud** 2021 IEEE International Symposium on Circuits and Systems (ISCAS), Daegu, Korea May 22-28, 2021 : proceedings 2021 / 5 p
<https://doi.org/10.1109/ISCAS51556.2021.9401261> [Conference Proceedings at Scopus Article at Scopus Article at WOS](#)

Embedded ICG-based stroke volume measurement system : comparison of discrete-time and continuous-time architectures

Gautier, Antoine; Larras, Benoit; **Märtens, Olev;** John, Deepu; Frappe, Antoine IEEE International SOC Conference 2022 / p. 46-51
<https://doi.org/10.1109/SOCC52499.2021.9739386>

Energy harvesting technologies - potential application to wearable health-monitoring

Ahmed, Faisal; Le Moulec, Yannick; Anus, Paul The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

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](#)

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>

High voltage circuit breaker charging motor's condition monitoring - importance, possibilities, and challenges

Asad, Bilal; Sardar, Muhammad Usman; Vaimann, Toomas; Kallaste, Ants; Asefi, Sajjad; Kilter, Jako 2024 International Conference on Diagnostics in Electrical Engineering (Diagnostika) 2024 / 7 p <https://doi.org/10.1109/Diagnostika61830.2024.10693906>

Improvement of lock-in electrical bio-impedance analyzer for implantable medical devices

Min, Mart; Parve, Toomas IEEE transactions on instrumentation and measurement 2007 / 3, p. 968-974

Interference and priority aware coexistence (IPC) algorithm for link scheduling in IEEE 802.15.6 based WBANs

Khan, Fawad Nawaz; Ahmad, Rizwan; Ahmed, Waqas; **Alam, Muhammad Mahtab**; Drieberg, Micheal IEEE Access 2019 / art. 8910561, p. 168736–168751 : ill [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Kõigile meeldivad targad tooted - tehkem siis rohkem koos- ja arendustööd!

Sarv, Mari Õõ Mente et Manu 2018 / lk. 36-37 : fot <https://www.ttu.ee/ttu-uudised/ajaleht-mente-et-manu/mente-et-manu/>
http://www.ester.ee/record=b1242496*est https://artiklid.elnet.ee/record=b2836035*est

Methods for detection of bioimpedance variations in resource constrained environments

Priidel, Eiko; Annus, Paul; Krivošei, Andrei; Rist, Marek; Land, Raul; Min, Mart; Märten, Olev Sensors 2020 / art. 1363, 16 p. : ill <https://doi.org/10.3390/s20051363> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Methods of multi-frequency bioimpedance measurement in implantable and wearable devices

Min, Mart; Parve, Toomas; Poola, Gustav Proceedings of the 3rd European Medical & Biological Engineering Conference EMBEC'05 : November 20-25, 2005, Prague, Czech Republic 2005 / [4] p

A novel physical fatigue assessment method utilizing heart rate variability and pulse arrival time towards personalized feedback with wearable sensors

Allik, Ardo; Pilt, Kristjan; Viigimäe, Moonika; Fridolin, Ivo; Jervan, Gert Sensors 2022 / art. 1680 <https://doi.org/10.3390/s22041680>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Observations concerning the results of capacitive monitoring of breathing and heart rate by the means of electrical bioimpedance

Metshein, Margus The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [4] p. : ill

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](#)

Optimized waveforms for synchronous signal processing

Annus, Paul; Min, Mart; Ojarand, Jaan Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kolmanda aastakonverentsi artiklite kogumik : 25.-26. aprill 2008, Voore külalistemaja 2008 / p. 51-54 : ill

Performance comparison of smartphones and a wearable motion sensor for patient m-assessment [Online resource]

Kask, Triin; Kuusik, Alar 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.2018.8600973>

PPG and bioimpedance-based wearable applications in heart rate monitoring – a comprehensive review

Lapsa, Didzis; Janeliukstis, Rims; **Metshein, Margus**; Selavo, Leo Applied sciences 2024 / art. 7451
<https://doi.org/10.3390/app14177451> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

Real-time gait anomaly detection using SVM time series classification

Rostovski, Jakob; Krivošei, Andrei; Kuusik, Alar; Alam, Muhammad Mahtab; Ahmadov, Ulvi 2023 International Wireless Communications and Mobile Computing (IWCMC) 2023 / p. 1389-1394 <https://doi.org/10.1109/IWCMC58020.2023.10182666>

Sektorite koostöös valmis maailmalõpuriietus

Mente et Manu 2017 / lk. 11 : fot http://www.ester.ee/record=b1242496*est https://artiklid.elnet.ee/record=b2830863*est

Sensor-location-specific joint acquisition of peripheral artery bioimpedance and photoplethysmogram for wearable applications

Metshein, Margus; Abdullayev, Anar; Gautier, Antoine; Larras, Benoit; Frappe, Antoine; Cardiff, Barry; **Annus, Paul; Land, Raul; Märten, Olev** Sensors 2023 / art. 7111 <https://doi.org/10.3390/s23167111> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sensortehnoloogia põhised kiibid on Eesti võimalus : Alar Kuusik: „Ootan väga, et ühiskonnas tuleks tagasi vastuvõtlikkus uutele, ka radikaalsetele lahendustele ja reformidele.“

Kuusik, Alar sirp.ee 2025 <https://www.sirp.ee/sensortehnoloogia-pohised-kiibid-on-eesti-voimalus/>

A survey on the roles of communication technologies in IoT-based personalized healthcare applications

Alam, Muhammad Mahtab; Malik, Hassan; Khan, Muhidul Islam; Pardy, Tamas; Kuusik, Alar; Le Moullec, Yannick IEEE

Access 2018 / p. 36611-36631 : ill <https://doi.org/10.1109/ACCESS.2018.2853148> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

System level optimizations in wearable wireless networks = Kantavate seadmete võrkude süsteemi tasemel optimeerimine

Khan, Rida 2021 https://www.ester.ee/record=b5403571*est <https://digikogu.taltech.ee/et/Item/5d6402a5-a537-4bf4-a5e0-988b8685228b>
<https://doi.org/10.23658/taltech.10/2021>

Towards a wearable device for capacitive monitoring of electrical bioimpedance of human body

Metshein, Margus; Parve, Toomas The 10th International Conference on Bioelectromagnetism : proceedings 2015 / [2] p. : ill

Wearable solutions for monitoring cardiorespiratory activity = Kehal kantavad vahendid kardiorespiratoorse aktiivsuse jälgimiseks

Metshein, Margus 2018 <https://digi.lib.ttu.ee/i/?9961> https://www.ester.ee/record=b5140297*est

Wearable technologies for monitoring aquatic exercises : a systematic review

Monoli, Cecilia; Tuhtan, Jeffrey Andrew; Piccinini, Luigi; Galli, Manuela Clinical Rehabilitation 2023 / p. 791-807

<https://doi.org/10.1177/02692155221141039> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)