

Accurate dialysis dose evaluation and extrapolation algorithms during online optical dialysis monitoring

Fridolin, Ivo; Karai, Deniss; Kostin, Sergei; Ubar, Raimund-Johannes IEEE transactions on biomedical engineering 2013 / p. 1371-1377 : ill <https://doi.org/10.1109/TBME.2012.2234458> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 2016 / p. 460-464 : ill <https://doi.org/10.1109/IECBES.2016.7843493>

Analyse of T-wave morphology for discrimination of life threatening arrhythmias - preliminary study

Olli, Ülle; Karai, Deniss; Lass, Jaanus; Kaik, Jüri; Vainu, Meelis Medicon 2001 : IX Mediterranean Conference on Medical and Biological Engineering and Computing : June 12-15, 2001, Pula, Croatia : [proceedings]. Part I 2001 / p. 344-347

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

Arterial hypertension, left ventricular geometry and QT dispersion in a middle-aged Estonian female population

Shipilova, Tatjana; Pšenitšnikov, Igor; Kaik, Jüri; Volozh, Olga; Abina, Jelena; Kalev, Maie; Lass, Jaanus; Karai, Deniss Blood pressure 2003 / 1, p. 12-18

Arterial pulse waveform dependence on applied pressure

Pilt, Kristjan; Meigas, Kalju; Viigimaa, Margus; Kaik, Jüri; Kattai, Rain; Karai, Deniss 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. 277-280 : ill

Association between ventricular repolarization and main cardiovascular risk factors

Pšenitšnikov, Igor; Šipilova, Tatjana; Karai, Deniss; Riipulk, Jevgeni; Veski, Kristi; Pilt, Kristjan; Kaik, Jüri Scandinavian cardiovascular journal : SCJ 2011 / p. 33-40 : ill

Blood groups, blood pressure and left ventricular geometry in women

Shipilova, Tatjana; Pšenitšnikov, Igor; Volozh, Olga; Abina, Jelena; Kalev, Maie; Kaik, Jüri; Lass, Jaanus; Karai, Deniss Journal of hypertension 2002 / p. 20

Calculation of pulse wave transit time and its correlation with blood pressure using different physiological signals [Electronic resource]

Meigas, Kalju; Lass, Jaanus; Kattai, Rain; Karai, Deniss; Kaik, Jüri Proceedings of World Congress on Medical Physics and Biomedical Engineering, Sidney, Australia, 2003 2003 / [4] p. [CD-ROM]

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 different ventricular repolarisation phases from ECG for identifying patients with increased risk of sudden cardiac death

Lass, Jaanus; Kaik, Jüri; Karai, Deniss; Hinrikus, Hiie; Vainu, Meelis IV International Workshop on Biosignal Interpretation : BSI2002, Como, Italy, 24th-26th June, 2002 : proceedings 2002 / p. 393-396 : ill

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](#)

Continuous blood pressure monitoring during exercise using pulse wave transit time measurement

Lass, Jaanus; Meigas, Kalju; Karai, Deniss; Kattai, Rain; Kaik, Jüri; Rossmann, Mart Proceedings of the 26th Annual International Conference of the IEEE EMBC : San Francisco, CA, USA, September 1-5, 2004 2004 / p. 2239-2242 : ill

Development of a measurement system for estimation of local peripheral arterial stiffness parameters

Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / p. 1-5 <https://doi.org/10.1109/BEC61458.2024.10737944> [Article at Scopus](#) [Conference proceeding at Scopus](#) [Article at WOS](#)

Device for continuous blood pressure measurements

Meigas, Kalju; Lass, Jaanus; Karai, Deniss; Kattai, Rain; Kaik, Jüri NBC'05 UMEA : 13th Nordic Baltic Conference on Biomedical Engineering and Medical Physics : June 13th-17th, 2005, Umea, Sweden 2005 / p. 164-165 : ill

Effect of microwave radiation on human EEG at two different levels of exposure

Suhhova, Anna; Bachmann, Maie; Karai, Deniss; Lass, Jaanus; Hinrikus, Hiie Bioelectromagnetics 2012 / p. 264 - 274 : ill
<https://doi.org/10.1002/bem.21772> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electroencephalography as an objective indicator of stress

Gavriljuk, Marietta; Uudeberg, Tuuli; Pilt, Kristjan; Karai, Deniss; Fridolin, Ivo; Bachmann, Maie 19th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics : Proceedings of NBC 2023, June 12–14, 2023, Liepaja, Latvia 2023 / p. 221–226
https://doi.org/10.1007/978-3-031-37132-5_28 [Conference proceedings at Scopus](#) [Article at Scopus](#)

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>

Health risks to computer-workers in various indoor facilities [Electronic resource]

Tint, Piia; Toomeoja, K.; Tuulik, Viuu; Karai, Deniss; Meigas, Kalju Riga Technical University 54th International Scientific Conference Scientific Conference on Economics and Entrepreneurship (SCEE'2013) : proceedings 2013 / [2] p [CD-ROM]

Hemodialysis optical monitoring toward greener technology : a potential for water saving dialysis treatment

Leis, Liisi; Adoberg, Annika; Paats, Joosep; Holmar, Jana; Arund, Jürgen; Karai, Deniss; Luman, Merike; Pilt, Kristjan; Taklaja, Paul; Tanner, Risto; Fridolin, Ivo 19th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics : Proceedings of NBC 2023, June 12–14, 2023, Liepaja, Latvia 2023 / p. 162 - 171 https://doi.org/10.1007/978-3-031-37132-5_21
[Conference Proceedings at Scopus](#) [Article at Scopus](#)

Influence of acute mental stress on the forehead photoplethysmographic signal waveform

Pilt, Kristjan; Karai, Deniss; Bachmann, Maie; Gavriljuk, Marietta; Fridolin, Ivo 19th Nordic-Baltic conference on biomedical engineering and medical physics : proceedings of NBC 2023, June 12-14, 2023, Liepaja, Latvia 2023 / p. 181 - 188
https://doi.org/10.1007/978-3-031-37132-5_23 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Influence of gender on the QT interval variability and duration in different wake–sleep stages in non-sleep apneic individuals : analysis of polysomnographic recordings

Viigimäe, Moonika; Karai, Deniss; Pilt, Kristjan; Polo, Olli; Huhtala, Heini; Meigas, Kalju; Kaik, Jüri Journal of electrocardiology 2017 / p. 444-449 : ill <https://doi.org/10.1016/j.jelectrocard.2017.03.012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of low-level microwave radiation on nerve pulse conduction velocity

Hinrikus, Hiie; Lass, Jaanus; Karai, Deniss; Kalda, Jaak; Tomson, Ruth; Tuulik, Viuu Biological Effects of EMFs 3rd International Workshop : Kos, Greece, 4-8 October 2004 : proceedings. Volume 2 2004 / p. 641-648 : ill

Influence of mental stress on the arterial stiffness parameters detected from photoplethysmographic signal waveform

Pilt, Kristjan; Karai, Deniss; Bachmann, Maie; Gavriljuk, Marietta; Allik, Ardo; Uudeberg, Tuuli 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 4 p <https://doi.org/10.1109/BEC56180.2022.9935609>

Investigation of photoplethysmographic signal augmentation index estimation differences between fingers

Pilt, Kristjan; Silluta, Sandra; Kõõts, Kristina; Karai, Deniss; Meigas, Kalju; Viigimaa, Margus EMBEC & NBC 2017 : joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, June 2017 2018 / p. 819-822 : ill https://doi.org/10.1007/978-981-10-5122-7_205 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Low-level microwave radiation effect on nerve pulse conduction velocity

Hinrikus, Hiie; Tomson, Ruth; Lass, Jaanus; Karai, Deniss; Kalda, Jaak; Tuulik, Viuu The environmentalist 2005 / 2/4, p. 157-163 https://www.researchgate.net/publication/227333897_Low-Level_Microwave_Radiation_Effect_on_Nerve_Pulse_Conduction_Velocity

Method and device for beat-to-beat blood pressure measurements [Electronic resource]

Meigas, Kalju; Lass, Jaanus; Karai, Deniss; Kattai, Rain; Kaik, Jüri IFMBE proceedings 2005 / [6] p. [CD-ROM]

Method of optical self-mixing for pulse wave transit time measurement in comparison with other methods and correlation with blood pressure

Meigas, Kalju; Lass, Jaanus; Kattai, Rain; Karai, Deniss; Kaik, Jüri Coherence Domain Optical Methods and Optical Coherence Tomography in Biomedicine VIII : 26-28 January 2004, San Jose, California, USA 2004 / p. 444-453 : ill
[https://www.spiedigitallibrary.org/conference-proceedings-of-spie/5316/1/Method-of-optical-self-mixing-for-pulse-wave-transit-time/10.1117/12.524273.full#_ =](https://www.spiedigitallibrary.org/conference-proceedings-of-spie/5316/1/Method-of-optical-self-mixing-for-pulse-wave-transit-time/10.1117/12.524273.full#_=)

Monitoring blood pressure from pulse wave transit time

Tepner, Ingrid; Lass, Jaanus; Karai, Deniss; Hinrikus, Hiie; Meigas, Kalju IV International Workshop on Biosignal Interpretation :

On-line monitoring of dialysis adequacy using diasens optical sensor: accurate Kt/V estimation by smoothing algorithms
Talaisainen, Aleksei; Kostin, Sergei; Karai, Deniss; Fridolin, Ivo; Ubar, Raimund-Johannes 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. 273-276 : ill

Optical and electrical methods for pulse wave transit time measurement and its correlation with arterial blood pressure
Lass, Jaanus; Meigas, Kalju; Kattai, Rain; Karai, Deniss; Kaik, Jüri; Rossmann, Mart Proceedings of the Estonian Academy of Sciences. Engineering 2004 / 2, p. 123-136 : 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](#)

Prevention of physiological and psychological stress at computer-equipped workplaces
Tint, Piia; Meigas, Kalju; Tuulik, Viuu; Pille, Viive; Oha, Kristel; Reinhold, Karin; Karai, Deniss; Tuulik-Leisi, Varje-Riin; Lauri, Mariliis Human factors : sustainable life and mobility : proceedings of the Human Factors and Ergonomics Society Europe Chapter 2013 Annual Conference 2014 / p. 229-240 : ill

Pulse wave parameters as indicators of the state of the arteries
Hinrikus, Hiie; Lass, Jaanus; Karai, Deniss; Tepner, Ingrid Proceedings of 2nd European Medical & Biological Engineering Conference EMBE'02. 1 2002 / p. 642-643

QT dispersion in relation to left ventricular geometry and hypertension in a population study
Pšenitšnikov, Igor; Shipilova, Tatjana; Kaik, Jüri; Volozh, Olga; Abina, Jelena; **Lass, Jaanus; Karai, Deniss** Scandinavian cardiovascular journal : SCJ 2003 / 2, p. 87-90

QT interval variability index and QT interval duration during different sleep stages in patients with obstructive sleep apnea
Viigimäe, Moonika; Karai, Deniss; Pilt, Kristjan; Pirm, Peeter; Huhtala, Heini; Polo, Olli; **Meigas, Kalju; Kaik, Jüri** Sleep medicine 2017 / p. 160-167 : ill <https://doi.org/10.1016/j.sleep.2017.06.026> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

QT interval variability index and QT interval duration in different sleep stages : analysis of polysomnographic recordings in nonapneic male patients
Viigimäe, Moonika; Karai, Deniss; Pirm, Peeter; **Pilt, Kristjan; Meigas, Kalju; Kaik, Jüri** BioMed Research International 2015 / art. 963028 <https://doi.org/10.1155/2015/963028> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Second derivative photoplethysmographic signal analysis of differences between fingers in healthy subjects [Online resource]
Pilt, Kristjan; Silluta, Sandra; Palmar, Merlin; Karai, Deniss; Meigas, Kalju; Viigimaa, Margus BEC 2018 : 2018 16th Biennial Baltic Electronics Conference (BEC) : proceedings of the 16th Biennial Baltic Electronics Conference, October 8-10, 2018 2019 / 4 p.: ill <https://doi.org/10.1109/BEC.2018.8600985>

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](#)

Stability of the relationship between pulse wave delay and arterial blood pressure
Hinrikus, Hiie; Tepner, Ingrid; Lass, Jaanus; Karai, Deniss 12th Nordic Baltic Conference on Biomedical Engineering and Medical Physics : 12NBC 2002, June 18th-22nd, Reykjavik, Iceland 2002 / p. 22-23

The computer workers' working conditions influencing the health in modern buildings
Tint, Piia; Karai, Deniss; Oha, Kristel; **Koppel, Tarmo; Tuulik-Leisi, Varje-Riin; Tuulik, Viuu; Meigas, Kalju** Intelligent Technologies in Logistics and Mechatronics Systems ITELMS'2013 : proceedings of the 8th international conference 2013 / p. 247-253 : ill

The working conditions of office-workers in modern buildings
Tint, Piia; Karai, Deniss; Oha, Kristel; **Koppel, Tarmo; Tuulik-Leisi, Varje-Riin; Tuulik, Viuu; Meigas, Kalju** Human factors : sustainable life and mobility : October 16-18, 2013, Torino, Italy : programme, abstracts book 2013 / p. [64]

24-hour heart rate profile in assessment of target organs in women with arterial hypertension
Šipilova, Tatjana; Pšenitšnikov, Igor; Karai, Deniss; Ripulk, E.; Kaik, Jüri Kardiologiya 2013 / p. 45-50
<https://pubmed.ncbi.nlm.nih.gov/23548350/> [Journal metrics at Scopus](#) [Article at Scopus](#)

Ventricular repolarization evaluation from surface ECG for identification of the patients with increased myocardial electrical instability

Lass, Jaanus; Kaik, Jüri; Karai, Deniss; Vainu, Meelis 2001 Conference Proceedings of the 23rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society : 25-28 October 2001, Istanbul, Turkey. Vol. 1 2001 / p. 390-393 : ill
<https://ieeexplore.ieee.org/document/1018943>

Vähiuurimisaparaat säästab haige tervist : innovaatikamess esitles mittekiirgavat radiomeetrit : [väljapanekuid tutvustavad Hiie Hinrikus, Deniss Karai ja Arved Vain]

Hinrikus, Hiie; Karai, Deniss; Vain, Arved; Väre, Hans Eesti Päevaleht 1999 / 9. apr., lk. 5