

Acoustic forward model for guided wave propagation and scattering in a pipe bend

Rasgado Moreno, Carlos Omar; Rist, Marek; Land, Raul; Ratassepp, Madis Sensors 2022 / art. 486

<https://doi.org/10.3390/s22020486> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Adaptive LINE-P : an adaptive linear energy prediction model for wireless sensor network nodes

Ahmed, Faisal; Tamberg, Gert; Le Moullec, Yannick; Annus, Paul Sensors 2018 / art. 1105, 26 p. : ill

<https://doi.org/10.3390/s18041105> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bridging the gap in technology transfer for advanced process control with industrial applications

Vansovits, Vitali; Petlenkov, Eduard; Tepljakov, Aleksei; Vassiljeva, Kristina; Belikov, Juri Sensors 2022 / art. 4149

<https://doi.org/10.3390/s22114149> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comprehensive Diagnostic Assessment of Inverter Failures in a Utility-Scale Solar Power Plant : A Case Study Based on Field and Laboratory Validation

Kull, Karl; Asad, Bilal; Naseer, Muhammad Usman; Kallaste, Ants; Vaimann, Toomas Sensors 2025 / art. 3717

<https://doi.org/10.3390/s25123717>

Convolution of Barker and Mutually Orthogonal Golay Complementary Codes for Ultrasonic Testing

Peng, Chengxiang; Annus, Paul; Rist, Marek; Land, Raul; Ratassepp, Madis Sensors 2025 / art. 5007

<https://doi.org/10.3390/s25165007>

A cost-effective electric vehicle intelligent charge scheduling method for commercial smart parking lots using a simplified convex relaxation technique

Jawad, Muhammad; Qureshi, Muhammad Bilal; Ali, Sahibzada Muhammad; Shabbir, Noman; Khan, Muhammad Usman; Aloraini, Afnan; Nawaz, Raheel Sensors 2020 / p. 1-19 <https://doi.org/10.3390/s20174842> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cost-efficient network planning for the cross-border Baltic corridor—a study

Elgarhy, Osama Mohamed Mostafa; Alam, Mohammad Saad; Tammets, Anet; Roosipuu, Priit; Ancans, Guntis; Saidans, Guntars; Tutovs, Jurijs; Saliņš, Klavs; Verdiņš, A.; Aleksandrovs, M.; Perševics, A.; Zariņš, D.; Uusmaa, Mart; Uhtlik, Ove; Soom, Priit Sensors 2023 / art. 8111 <https://doi.org/10.3390/s23198111> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

DC voltage sensorless predictive control of a high-efficiency PFC single-phase rectifier based on the versatile buck-boost converter

González-Castaño, Catalina; Restrepo, Carlos; Sanz, Fredy; Chub, Andrii; Giral, Roberto Sensors 2021 / art. 5107

<https://doi.org/10.3390/s21155107> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

DL-AoD estimation-based 5G positioning using directionally transmitted synchronization signals

Mürsepp, Ivo; Alam, Muhammad Mahtab Sensors 2025 / art. 6372 <https://doi.org/10.3390/s25206372> <https://www.mdpi.com/1424-8220/25/20/6372>

Dual-source Linear Energy Prediction (LINE-P) model in the context of WSNs

Ahmed, Faisal; Tamberg, Gert; Le Moullec, Yannick; Annus, Paul Sensors 2017 / art. 1666, p. 1-22 : ill

<https://doi.org/10.3390/s17071666> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electrical bioimpedance analysis for evaluating the effect of pelotherapy on the human skin : methodology and experiments

Metshein, Margus; Tuulik, Varje-Riin; Tuulik, Viiv; Kumm, Monika; Min, Mart; Annus, Paul Sensors 2023 / art. 4251

<https://doi.org/10.3390/s23094251> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

End-to-end multimodal sensor dataset collection framework for autonomous vehicles

Gu, Junyi; Lind, Artjom; Chhetri, Tek Raj; Bellone, Mauro; Sell, Raivo Sensors 2023 / art. 6783, 25 p. : ill

<https://doi.org/10.3390/s23156783> [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](#)

An evolutionary field theorem : evolutionary field optimization in training of power-weighted multiplicative neurons for nitrogen oxides-sensitive electronic nose applications

Alagoz, Baris Baykant; Simsek, Ozlem Imik; Ari, Davut; Tepljakov, Aleksei; Petlenkov, Eduard; Alimohammadi, Hossein

Sensors 2022 / art. 3836 <https://doi.org/10.3390/s22103836> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Explainability and transparency of classifiers for air-handling unit faults using explainable artificial intelligence (XAI)

Meas, Molika; Machlev, Ram; **Köse, Ahmet**; **Tepljakov, Aleksei**; **Loo, Lauri**; Levron, Yoash; **Petlenkov, Eduard**; **Belikov, Juri** Sensors 2022 / art. 6338 : ill <https://doi.org/10.3390/s22176338> [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](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fabrication, potentiometric characterization, and application of screen-printed RuO₂ pH electrodes for water quality testing

Uppuluri, Kiranmai; **Lazouskaya, Maryna**; Szwagierczak, Dorota; Zaraska, Krzysztof; Tamm, Martti Sensors 2021 / art. 5399, 15 p. : ill <https://doi.org/10.3390/s21165399> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

First principles simulations of phenol and methanol detector based on pristine graphene nanosheet and armchair graphene nanoribbons

Rashid, Muhammad Haroon; **Koel, Ants**; **Rang, Toomas** Sensors 2019 / art. 2731, 14 p. : ill <https://doi.org/10.3390/s19122731> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Forward and backward walking : multifactorial characterization of gait parameters

Donno, Lucia; **Monoli, Cecilia**; Frigo, Carlo Albino; Galli, Manuela Sensors 2023 / art. 4671 <https://doi.org/10.3390/s23104671> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fractional Fourier transform-based signal separation for ultrasonic guided wave inspection of plates

Peng, Chengxiang; **Annus, Paul**; **Rist, Marek**; **Land, Raul**; **Ratassepp, Madis** Sensors 2024 / art. 7564 <https://doi.org/10.3390/s24237564> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

From ADAS to Material-Informed Inspection : Review of Hyperspectral Imaging Applications on Mobile Ground Robots

Valme, Daniil; **Rassõlkin, Anton**; **Liyanage, Dhanushka Chamara** Sensors 2025 / art. 2346 <https://doi.org/10.3390/s25082346> <https://www.mdpi.com/1424-8220/25/8/2346>

Heuristic radio access network subslicing with user clustering and bandwidth subpartitioning

Kulmar, Marika; **Müürsepp, Ivo**; **Alam, Muhammad Mahtab** Sensors 2023 / art. 4613 : ill <https://doi.org/10.3390/s23104613> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Implementation and performance evaluation of quantum-inspired clustering scheme for energy-efficient WSNs

Uthayakumar, Chindiyababy; Jayaraman, Ramkumar; **Raja, Hadi Ashraf**; **Daniel, Kamran** Sensors 2025 / art. 5872 <https://doi.org/10.3390/s25185872> <https://www.mdpi.com/3507118>

Intelligent control and digital twins for industry 4.0

Tepljakov, Aleksei Sensors 2023 / art. 4036 <https://doi.org/10.3390/s23084036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Lidar-camera semi-supervised learning for semantic segmentation

Caltagirone, Luka; **Bellone, Mauro**; Svensson, Lennart; Wahde, Mattias; **Sell, Raivo** Sensors 2021 / art. 4813 <https://doi.org/10.3390/s21144813> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A machine learning approach to achieving energy efficiency in relay-assisted LTE-a downlink system

Hassan, Hammad; Ahmed, Ifran; Ahmad, Rizwan; Khammari, Hedi; Bhatti, Ghulam; Ahmed, Waqas; **Alam, Muhammad Mahtab** Sensors 2019 / art. 3461, 25 p. : ill <https://doi.org/10.3390/s19163461> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Machine learning-based prediction of specific energy consumption for cut-off grinding

Awan, Muhammad Rizwan; Rojas, Hernan A. Gonzalez; **Hameed, Saqib**; Riaz, Fahid; Hamid, Shahzaib; **Hussain, Abrar** Sensors 2022 / art. 7152 <https://doi.org/10.3390/s22197152> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Methods for detection of bioimpedance variations in resource constrained environments

Priidel, Eiko; **Annus, Paul**; **Krivošei, Andrei**; **Rist, Marek**; **Land, Raul**; **Min, Mart**; **Märtens, 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](#)

Multichannel electrical impedance spectroscopy analyzer with microfluidic sensors

Ojarand, Jaan; Min, Mart; Koel, Ants Sensors 2019 / art. 1891, 28 p. : ill <https://doi.org/10.3390/s19081891> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Narrowband internet of things (NB-IoT) : from physical (PHY) and media access control (MAC) layers perspectives
Mwakwata, Collins Burton; Malik, Hassan; Alam, Muhammad Mahtab; Le Moullec, Yannick; Päränd, Sven; Mumtaz, Shahid Sensors 2019 / art. 2613, 34 p.: ill <https://doi.org/10.3390/s19112613> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An NB-IoT based edge-of-things framework for energy-efficient image transfer
Khan, Sikandar Muhammad Zulqarnain; Le Moullec, Yannick; Alam, Muhammad Mahtab Sensors 2021 / art. 5929, 21 p. : ill <https://doi.org/10.3390/s21175929> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Non-standard electrode placement strategies for ECG signal acquisition
Metshein, Margus; Krivošei, Andrei; Abdullayev, Anar; Annus, Paul; Märtens, Olev Sensors 2022 / art. 9351 <https://doi.org/10.3390/s22239351> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

On coverage of critical nodes in UAV-assisted emergency networks
Waheed, Maham; Ahmad, Rizwan; Ahmed, Waqas; Alam, Muhammad Mahtab; Magarini, Maurizio Sensors 2023 / art. 1586 <https://doi.org/10.3390/s23031586> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

On-line corrosion monitoring of plate structures based on guided wave tomography using piezoelectric sensors
Rao, Jing; Ratassepp, Madis; Lisevych, Danylo; Caffoor, Mahadhir Hamzah; Fan, Zheng Sensors 2017 / art. 2882, p. 1-14 : ill <https://doi.org/10.3390/s17122882> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An open surface drifter for river flow field characterization
Fuentes-Pérez, Juan Francisco; Sanz-Ronda, Francisco Javier; Tuhtan, Jeffrey Andrew Sensors 2022 / art. nr. 9918 <https://doi.org/10.3390/s22249918> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An Overview of Autonomous Parking Systems : Strategies, Challenges, and Future Directions
Olmos Medina, Javier Santiago; Maradey Lázaro, Jessica Gissella; Rassölkin, Anton; González Acuña, Hernán Sensors 2025 / art. 4328 <https://doi.org/10.3390/s25144328> <https://www.mdpi.com/1424-8220/25/14/4328>

Overview of digital twin platforms for EV applications
Mohamed, Mahmoud Ibrahim Hassanin; Rjabtšikov, Viktor; Zequera, Rolando Antonio Gilbert Sensors 2023 / art. 1414, 15 p. : ill <https://doi.org/10.3390/s23031414> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Performance optimization of a high-speed permanent magnet synchronous motor drive system for formula electric vehicle application
Ibrahim, Mahmoud; Järg, Oskar; Seppago, Raigo; Rassölkin, Anton Sensors 2025 / art. 3156 <https://doi.org/10.3390/s25103156> <https://www.mdpi.com/1424-8220/25/10/3156>

Q-Learning based joint energy-spectral efficiency optimization in multi-hop device-to-device communication
Khan, Muhidul Islam; Reggiani, Luca; Alam, Muhammad Mahtab; Le Moullec, Yannick; Sharma, Navuday; Yaacoub, Elias; Magarini, Maurizio Sensors 2020 / art. 6692, 23 p.: ill <https://doi.org/10.3390/s20226692> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A QoS optimization approach in cognitive body area networks for healthcare applications
Ahmed, Tauseef; Le Moullec, Yannick Sensors 2017 / art. 780, p. 1-23 : ill <https://doi.org/10.3390/s17040780> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

QSEER-quantum-enhanced secure and energy-efficient routing protocol for wireless sensor networks (WSNs)
Uthayakumar, Chindiyababy; Jayaraman Ramkumar; Raja, Hadi Ashraf; Shabbir, Noman Sensors 2025 / art. 5924 <https://doi.org/10.3390/s25185924> <https://www.mdpi.com/3510116>

Real-time regulation of beam-based feedback : implementing an FPGA solution for a continuous wave linear accelerator
Maalberg, Andrei; Kuntzsch, Michael; Petlenkov, Eduard Sensors 2022 / art. 6236, 22 p. : ill <https://doi.org/10.3390/s22166236> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A reinforcement learning routing protocol for UAV aided public safety networks
Minhas, Hassan Ishtiaq; Ahmad, Rizwan; Ahmed, Waqas; Waheed, Maham; Alam, Muhammad Mahtab; Gul, Sufi Tabassum Sensors 2021 / Art. nr. 4121 <https://doi.org/10.3390/s21124121> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

[Article at WOS](#)

Seamless 5g multi-hop connectivity architecture and trials for maritime applications

Lindenberg, Arturs; Muehleisen, Maciej; Payaro, Miquel; **Körbe Kaare, Kati**; Zaglauer, Helmut W.; Scholliers, Johan; Sadam, Arvi; **Kuhi, Kristjan**; Nykanen, Lasse Sensors 2023 / art. 4203 <https://doi.org/10.3390/s23094203> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

A survey on UAV computing platforms : a hardware reliability perspective

Ahmed, Foisal; Jenihhin, Maksim Sensors 2022 / art. 6286 <https://doi.org/10.3390/s22166286> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A systematic review of cutting-edge radar technologies : applications for unmanned ground vehicles (UGVs)

Ersü, Can; Petlenkov, Eduard; Janson, Karl Sensors 2024 / art. 7807 <https://doi.org/10.3390/s24237807> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Systematic review of fault tolerant techniques in underwater sensor networks

Vihman, Lauri; Kruusmaa, Maarja; Raik, Jaan Sensors 2021 / art. 3264 <https://doi.org/10.3390/s21093264> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The impact of the natural level of blood biochemicals on electroencephalographic markers in healthy people

Päeske, Laura; Hinrikus, Hiie; Lass, Jaanus; Põld, Toomas; Bachmann, Maie Sensors 2024 / art. 7438 <https://doi.org/10.3390/s24237438> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Thermal analysis of a disposable, instrument-free DNA amplification lab-on-a-chip platform

Pardy, Tamas; Rang, Toomas; Tulp, Indrek Sensors 2018 / art. 1812, 13 p. : ill <https://doi.org/10.3390/s18061812> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Towards efficient wireless body area network using two-way relay cooperation

Waheed, Maham; Ahmad, Rizwan; **Alam, Muhammad Mahtab** Sensors 2018 / art. 565, 23 p. : ill <https://doi.org/10.3390/s18020565> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Towards the development of a 3-D biochip for the detection of hepatitis C virus

Antipchik, Mariia; Polyakov, Dmitry; Sinitsyna, Ekaterina Sensors 2020 / art. 2719, 17 p <https://doi.org/10.3390/s20092719>

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](#)

User experience during an immersive virtual reality-based cognitive task : a comparison between Estonian and Italian older adults with MCI

Mondellini, Marta; Arlati, Sara; Gapeyeva, Helena; Lees, Kairi; Märiz, Ingrid; **Pizzagalli, Simone Luca; Otto, Tauno**; Sacco, Marco; Teder-Braschinsky, Anneli Sensors 2022 / art. 8249 <https://doi.org/10.3390/s22218249> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Validation of wired and wireless interconnected body sensor networks

Talpur, Anum; Shaikh, Faisal Karim; Baloch, Natasha; Felemban, Emad; Khelil, Abdelmajid; **Alam, Muhammad Mahtab** Sensors 2019 / art. 3697, 23 p. : ill <https://doi.org/10.3390/s19173697> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)