

Advances in machine fault diagnosis

Vaimann, Toomas Applied sciences 2021 / art. 7348, 5 p <https://doi.org/10.3390/app11167348> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Applications of digital twin across industries : a review

Singh, Maulshree; Srivastava, Rupal; Fuenmayor, Evert; **Kuts, Vladimir**; Qiao, Yuansong; Murray, Niall; Devine, Declan Applied sciences 2022 / art. 5727 <https://doi.org/10.3390/app12115727>

Common-mode voltage analysis and reduction for the quasi-Z-source inverter with a split inductor

Liu, Wenjie; Yang, Yongheng; Kerekes, Tamas; **Liivik, Elizaveta**; **Vinnikov, Dmitri**; Blaabjerg, Frede Applied sciences 2020 / art. 8713, 13 p. : ill <https://doi.org/10.3390/app10238713> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative evaluation of the air core magnetic design for MHz+ switching frequency

Matiushkin, Oleksandr; Pakhaliuk, Bohdan; Gutierrez-Escalona, Javier; Romero-Cadaval, Enrique; Husev, Oleksandr; Zakis, Janis Applied sciences 2025 / art. 8820 <https://doi.org/10.3390/app15168820>

Condition monitoring of a Cartesian robot with a mechanically damaged gear to create a fuzzy logic control and diagnosis algorithm

Autsou, Siarhei; Kudelina, Karolina; **Vaimann, Toomas**; **Rassõlkin, Anton**; **Kallaste, Ants** Applied sciences 2024 / art. 4241 <https://doi.org/10.3390/app14104241> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design and simulation of the robust ABS and ESP fuzzy logic controller on the complex braking maneuvers

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Effect of Si addition on microstructure and mechanical properties of SiC ceramic fabricated by direct LPBF with CVI technology

Wang, Yipu; Wang, Pei; Li, Liqun; Zhang, Jian; Zhang, Yulei; Peng, Jin; Wang, Xingxing; Kang, Nan; El Mansori, Mohamed; **Prashanth, Konda Gokuldoss** Applied sciences 2025 / art. 8585 <https://doi.org/10.3390/app15158585>

Effects of night ventilation on indoor air quality in educational buildings—a field study

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Enhanced control strategy for three-level T-type converters in hybrid power-to-X systems

Sassonker Elkayam, Moria; **Vinnikov, Dmitri** Applied sciences 2025 / art. 2409 <https://doi.org/10.3390/app15052409>

Experimental analysis of engine performance and exhaust pollutant on a single-cylinder diesel engine operated using moringa oleifera biodiesel

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Hydroacoustic and pressure turbulence analysis for the assessment of fish presence and behavior upstream of a vertical trash rack at a run-of-river hydropower plant

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Hysteresis measurements and numerical losses segregation of additively manufactured silicon steel for 3D printing electrical machines

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Implementing an AI-based digital twin analysis system for real-time decision support in a custom-made sportswear SME

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In situ Al3BC/Al composite fabricated via solid-solid reaction: An investigation on microstructure and mechanical behavior

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Influence of internal pressure on hollow section steel members in fire

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Integrating Digital Twin Software Solutions with Collaborative Industrial Systems : A Comprehensive Review for Operational Efficiency

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Language of driving for autonomous vehicles

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Mechanical behavior of Ti6Al4V scaffolds filled with CaSiO₃ for implant applications

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Modeling battery energy storage systems based on remaining useful lifetime through regression algorithms and binary classifiers

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

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Optimization of radiators, underfloor and ceiling heater towards the definition of a reference ideal heater for energy efficient buildings

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Optimizing the processing of shellfish (Mytilus edulis and M. trossulus Hybrid) biomass cultivated in the Low Salinity Region of the Baltic Sea for the extraction of meat and proteins

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Overheating risk and energy demand of nordic old and new apartment buildings during average and extreme weather conditions under a changing climate

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Pavement distress detection with deep learning using the orthoframes acquired by a mobile mapping system

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

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Principles and methods of servomotor control : comparative analysis and applications

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A review of harmonic detection, suppression, aggregation and estimation techniques

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Robust design optimization and emerging technologies for electrical machines: challenges and open problems

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SHS produced TiB₂-Si powders for selective laser melting of ceramic-based composite

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Signal acquisition and algorithm design for bioimpedance-based heart rate estimation from the wrist

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Structure defects and photovoltaic properties of TiO₂:ZnO/CuO solar cells prepared by reactive DC magnetron sputtering

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The cluster computation-based hybrid FEM–analytical model of induction motor for fault diagnostics

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Time dependency of current harmonics for switch-mode power supplies

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Towards improving the durability and overall performance of PV-ETICS by application of a PCM layer

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Transient modeling and recovery of non-stationary fault signature for condition monitoring of induction motors

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Trends and challenges in intelligent condition monitoring of electrical machines using machine learning

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A tutorial on dynamics and control of power systems with distributed and renewable energy sources based on the DQ0 transformation

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Urban open platform for borderless smart cities

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