

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](#)

Analysis of Industry 4.0 capabilities: a perspective of educational institutions and needs of industry

Mahmood, Kashif; Otto, Tauno; Kristensen, Jesper H.; Heidemann Lassen, Astrid; Brunoe, Thomas D.; Schou, Casper; Christiansen, Lasse; Laursen, Esben Skov Towards Sustainable Customization : Bridging Smart Products and Manufacturing Systems : proceedings of the 8th Changeable, Agile, Reconfigurable and Virtual Production Conference (CARV2021) and the 10th World Mass Customization & Personalization Conference (MCPC2021), Aalborg, Denmark, October/November 2021 2022 / p. 887–894 https://doi.org/10.1007/978-3-030-90700-6_101 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Analyzing power and energy flexibilities by demand response in district heated buildings in Finland and Germany

Ju, Yuchen; Jokisalo, Juha; Kosonen, Risto; Kauppi, Ville; Janßen, Philipp Science and technology for the built environment 2021 / p. 1440-1460 : ill <https://doi.org/10.1080/23744731.2021.1950434> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analytical approach to investigate the effect of gas channel draft angle on the performance of PEMFC and species distribution

Ahmadi, Nima; Kõrgesaar, Mihkel International journal of heat and mass transfer 2020 / art. 119529 <https://doi.org/10.1016/j.ijheatmasstransfer.2020.119529> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Calculation method for plates with discrete variable thickness under uniform loading or hydrostatic pressure

Aryassov, G.; Gornostajev, Dmitri; **Penkov, Igor** International journal of applied mechanics and engineering 2018 / p. 835–853 <https://doi.org/10.2478/ijame-2018-0046> [Journal metrics at Scopus](#) [Article at Scopus](#)

CFD simulation of bubbly flow in a long coaxial heat exchanger

Akhmadullin, Ildar; **Kartušinski, Aleksander** Thermal Science and Engineering Progress 2021 / art. 100991, 11 p <https://doi.org/10.1016/j.tsep.2021.100991> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Cost savings and CO2 emissions reduction potential in the German district heating system with demand response

Ju, Yuchen; Lindholm, Joakim; Verbeck, Moritz; **Jokisalo, Juha; Kosonen, Risto;** Janßen, Philipp; Li, Yantong; Schäfers, Hans; Nord, Natasa Science and Technology for the Built Environment 2022 / p. 255 - 274 <https://doi.org/10.1080/23744731.2021.2018875> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Determination of natural convection heat transfer coefficient over the fin side of a coil system

Shams Ghahfarokhi, Payam; Belahcen, Anouar; Kallaste, Ants; Vaimann, Toomas; Rassõlkin, Anton International journal of heat and mass transfer 2018 / p. 677-682 : ill <https://doi.org/10.1016/j.ijheatmasstransfer.2018.05.071> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Lestinen, Sami; Kilpeläinen, Simo; **Kosonen, Risto;** Valkonen, Maria; **Jokisalo, Juha;** Pasanen, Pertti Applied sciences 2021 / art. 4056, 20 p. : ill <https://doi.org/10.3390/app11094056> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Efficient fixed-switching modulated finite control set-model predictive control based on artificial neural networks

Bakeer, Abualkasim; Alhasheem, Mohammed; Peyghami, Saeed Applied Sciences (Switzerland) 2022 / art. 3134 <https://doi.org/10.3390/app12063134> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Elliptic-curve crypto processor for RFID applications

Rashid, Muhammad; Jamal, Sajjad Shaikat; Khan, Sikandar Zulqarnain; Alharbi, Adel R.; Aljaedi, Amer; **Imran, Malik** Applied Sciences (Switzerland) 2021 / art. 7079 <https://doi.org/10.3390/app11157079> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Exhaust air heat pump connection schemes and balanced heat recovery ventilation effect on district heat energy use and return temperature

Thalfeldt, Martin; Kurnitski, Jarek; Latõšov, Eduard Applied thermal engineering 2018 / p. 402-414 : ill <https://doi.org/10.1016/j.applthermaleng.2017.09.033> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental analysis of emission efficiency of parallel and serial connected radiators in EN442 test chamber

Võsa, Karl-Villem; Ferrantelli, Andrea; Kull, Tuule Mall; Kurnitski, Jarek Applied thermal engineering 2018 / p. 531–544 : ill

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

Soudagar, Manzoore Elahi M.; Khan, Haris Mahmood; Khan, M. Yunus; Razzaq, Luqman; Asif, Tahir; Mujtaba, M. A.; **Hussain, Abrar** Applied sciences 2021 / p. 7071–7089 <https://doi.org/10.3390/app11157071> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Experimental evaluation of IDA ICE and COMSOL models for an asymmetric borehole thermal energy storage field in Nordic climate

Xue, Tianchen; **Jokisalo, Juha; Kosonen, Risto**; Vuolle, Mika; Marongiu, Federica; Vallin, Sami; Leppäharju, Nina; Arola, Teppo Applied thermal engineering 2022 / art. 119261, 15 p. : ill <https://doi.org/10.1016/j.applthermaleng.2022.119261> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Experimental study of uni- and bi-directional exchange flows in a large scale rotating trapezoidal channel

De Falco, Maria Chiara; Adduce, Claudia; Cuthbertson, Alan; Negretti, Maria Eletta; **Laanearu, Janek**; Malcangio, Daniela; Sommeria, Joel Physics of Fluids 2021 / art. 036602, 17 p. : ill <https://doi.org/10.1063/5.0039251> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Hybrid thermal model of a synchronous reluctance machine

Shams Ghahfarokhi, Payam; Kallaste, Ants; Belahcen, Anouar; Vaimann, Toomas; Rassõlkin, Anton Case studies in thermal engineering 2018 / p. 381-389 : ill <https://doi.org/10.1016/j.csite.2018.05.007> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

Schmidt, Marc B.; **Tuhtan, Jeffrey Andrew**; Schletterer, Martin Applied sciences 2018 / art. 1723, 20 p. : ill <https://doi.org/10.3390/app8101723> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

Tiismus, Hans; Kallaste, Ants; Belahcen, Anouar; Vaimann, Toomas; Rassõlkin, Anton; Lukichev, Dmitry Applied sciences 2020 / art. 6515, 15 p <https://doi.org/10.3390/app10186515> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Influence of nozzle geometry on fluid flow parameters

Penkov, Igor; Aleksandrov, Dmitri International journal of applied mechanics and engineering 2020 / p. 215-222 : ill <https://doi.org/10.2478/ijame-2020-0060> Journal metrics at Scopus Article at Scopus

Language of driving for autonomous vehicles

Kalda, Krister; Pizzagalli, Simone Luca; Soe, Ralf-Martin; Sell, Raivo; Bellone, Mauro Applied sciences 2022 / art. 5406 <https://doi.org/10.3390/app12115406> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Long wave run-up on plane and “non-reflecting” slopes

Didenkulova, Irina; Pelinovsky, Efim; Rodin, Artem Fluid Dynamics 2018 / p. 402 - 408 <https://doi.org/10.1134/S0015462818030072> Journal metrics at Scopus Article at Scopus Article at WOS

Mechanical behavior of Ti6Al4V scaffolds filled with CaSiO3 for implant applications

Rahmani Ahranjani, Ramin; Antonov, Maksim; Kollo, Lauri; Holovenko, Yaroslav; Prashanth, Konda Gokuldoss Applied sciences 2019 / art. 3844, 11 p. : ill <https://doi.org/10.3390/app9183844> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Modelling of the human knee joint supported by active orthosis

Musalimov, Victor; Monahov, Juri; **Tamre, Mart**; Rõbak, Dmitri; **Sivitski, Alina; Arjassov, Gennadi; Penkov, Igor** International journal of applied mechanics and engineering 2018 / p. 107-120 : ill <https://doi.org/10.1515/ijame-2018-0007> Journal metrics at Scopus Article at Scopus

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

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

Ferrantelli, Andrea; Vösa, Karl-Villem; Kurnitski, Jarek Applied sciences 2018 / art. 2477, 22 p. : ill <https://doi.org/10.3390/app8122477> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

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

Adler, Indrek; Kotta, Jonne; Tuvikene, Rando; Kaldre, Katrin Applied sciences 2022 / art. 5163, 11 p. : ill

<https://doi.org/10.3390/app12105163> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Farahani, Azin Velashjerdi; Jokisalo, Juha; Korhonen, Natalia; Jylhä, Kirsti; Ruosteenoja, Kimmo; Kosonen, Risto Applied

sciences 2021 / art. 3972, 25 p. : ill <https://doi.org/10.3390/app11093972> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Riid, Andri; Lõuk, Roland; Pihlak, Rene; Tepljakov, Aleksei; Vassiljeva, Kristina Applied sciences 2019 / art. 4829, 22 p. : ill

<https://doi.org/10.3390/app9224829> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Performance improvement of decision tree : a robust classifier using tabu search algorithm

Hafeez, Muhammad Asfand; Rashid, Muhammad; Tariq, Hassan; Abideen, Zain Ul; Alotaibi, Saud S.; Sinky, Mohammed H. Applied Sciences (Switzerland) 2021 / art. 6728 <https://doi.org/10.3390/app11156728> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Physics shapes signals in nerves

Engelbrecht, Jüri; Tamm, Kert; Peets, Tanel The European Physical Journal Plus 2022 / art. 696 [https://doi.org/10.1140/epjp/s13360-](https://doi.org/10.1140/epjp/s13360-022-02883-5)

[022-02883-5](https://doi.org/10.1140/epjp/s13360-022-02883-5) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Orosz, Tamas; Rassõlkin, Anton; Kallaste, Ants; Arsenio, Pedro; Panek, David; Kaska, Jan; Karban, Pavel Applied sciences 2020 / art. 6653, 33 p. : ill <https://doi.org/10.3390/app10196653> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Role of impinging powder particles on melt pool hydrodynamics, thermal behaviour and microstructure in laser-assisted DED process : A particle-scale DEM – CFD – CA approach

Aggarwal, Akash; Chouhan, Arvind; Patel, Sushil; Prashanth, Konda Gokuldoss International journal of heat and mass transfer

2020 / art. 119989, 19 p. : ill <https://doi.org/10.1016/j.ijheatmasstransfer.2020.119989> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Liu, Le; Aydinyan, Sofiya; Minasyan, Tatevik; Hussainova, Irina Applied sciences 2020 / art. 3283, 12 p. : ill

<https://doi.org/10.3390/app10093283> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Simulation of the hot deformation and fracture behavior of reduced activation ferritic/martensitic 13CrMoNbV steel

Shaikh, Asad Alamgir; Churyumov, Alexander; Pozdniakov, Andrey; Churyumo, Tatiana Applied sciences 2020 / art. 530 ; 12 p. : ill

<https://doi.org/10.3390/app10020530> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Small magnus wind turbine : modeling approaches

Lukin, Aleksandr; Demidova, Galina; Rassõlkin, Anton; Lukichev, Dmitry; Vaimann, Toomas; Anuchin, Alecksey Applied

sciences 2022 / art. 1884 <https://doi.org/10.3390/app12041884> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

System vibration control using linear quadratic regulator

Abdelrahman, Mostafa; Arjassov, Gennadi; Tamre, Mart; Penkov, Igor International journal of applied mechanics and

engineering 2022 / p. 1-8 <https://doi.org/10.2478/ijame-2022-0031> [Journal metrics at Scopus](#) [Article at Scopus](#)

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

Asad, Bilal; Vaimann, Toomas; Belahcen, Anouar; Kallaste, Ants; Rassõlkin, Anton; Iqbal, Muhammad Naveed Applied

sciences 2020 / art. 7572, 15 p. : ill <https://doi.org/10.3390/app10217572> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Time dependency of current harmonics for switch-mode power supplies

Iqbal, Muhammad Naveed; Kütt, Lauri; Asad, Bilal; Vaimann, Toomas; Rassõlkin, Anton; Demidova, Galina Applied sciences

2020 / art. 7806, 12 p. : ill <https://doi.org/10.3390/app10217806> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Heim, Dariusz; Wieprzkowicz, Anna; Knera, Dominika; Ilomets, Simo; Kalamees, Targo; Spitalsky, Zdenko Applied sciences 2021 / art. 4667, 13 p. : ill <https://doi.org/10.3390/app11104667> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Asad, Bilal; Vaimann, Toomas; Belahcen, Anouar; Kallaste, Ants; Rassõlkin, Anton; Ghahfarokhi, Payam Shams; **Kudelina, Karolina** Applied sciences 2021 / 17 p. : ill <https://doi.org/10.3390/app11062806> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Kudelina, Karolina; Vaimann, Toomas; Asad, Bilal; Rassõlkin, Anton; Kallaste, Ants; Demidova, Galina Applied sciences 2021 / art. 2761, 19 p. : ill <https://doi.org/10.3390/app11062761> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Levron, Yoash; **Belikov, Juri;** Baimel, Dmitry Applied sciences 2018 / art. 1661, 48 p. : ill <https://doi.org/10.3390/app8091661> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Urban open platform for borderless smart cities

Soe, Ralf-Martin; Ruohomäki, Timo; **Patzig, Henry** Applied sciences 2022 / art. 700 <https://doi.org/10.3390/app12020700> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wake waves of a planing boat : an experimental model

Tavakoli, Sasan; Shaghaghi, Poorya; Mancini, Simone; De Luca, Fabio; **Dashtimanesh, Abbas** Physics of Fluids 2022 / Art. nr. 037104 <https://doi.org/10.1063/5.0084074> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)