

Artificial intelligence in monitoring and diagnostics of electrical energy conversion systems

Vaimann, Toomas; Rassõlkin, Anton; Kallaste, Ants; Pomarnacki, Raimondas; **Belahcen, Anouar;** Van Khang, Hyunh 2020 27th International Workshop on Electric Drives: MPEI Department of Electric Drives 90th Anniversary (IWED), Moscow, Russia, January 27-30, 2020 2020 / 4 p <https://doi.org/10.1109/IWED48848.2020.9069566>

Converter state-space model estimation using dynamic mode decomposition

Suskis, Pavels; Zakis, Janis; Suzdalenko, Alexander; Khang, Huynh Van; **Rassõlkin, Anton; Vaimann, Toomas;** Pomarnacki, Raimondas 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / 5 l <https://doi.org/10.1109/ENERGYCON53164.2022.9830201>

A current spectrum-based algorithm for fault detection of electrical machines using low-power data acquisition devices

Asad, Bilal; Raja, Hadi Ashraf; Vaimann, Toomas; Kallaste, Ants; Pomarnacki, Raimondas; Hyunh, Van Khang Electronics 2023 / art. 1746 <https://doi.org/10.3390/electronics12071746> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Digital Twin as a virtual sensor for wind turbine applications

Mohamed, Mahmoud Ibrahim Hassanin; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants; Zakis, Janis; Hyunh, Van Khang; Pomarnacki, Raimondas Energies 2023 / art. 6246 <https://doi.org/10.3390/en16176246> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Digital twin of wind generator for modelling various turbine characteristics

Raja, Hadi Ashraf; Autsou, Siarhei; Kudelina, Karolina; Rjabtšikov, Viktor; Vaimann, Toomas; Kallaste, Ants; Pomarnacki, Raimondas; Hyunh, Van Khang 2023 International Conference on Electrical Drives and Power Electronics (EDPE) 2023 / p. 1-5 <https://doi.org/10.1109/EDPE58625.2023.10274050>

Digital twin of wind generator to simulate different turbine characteristics using IoT

Raja, Hadi Ashraf; Kudelina, Karolina; Rjabtšikov, Viktor; Vaimann, Toomas; Kallaste, Ants; Pomarnacki, Raimondas; Hyunh, Van Khang Proceedings of the Future Technologies Conference (FTC) 2023. Vol. 1 2023 / p. 123-132 https://doi.org/10.1007/978-3-031-47454-5_9 [Conference proceedings at Scopus](#) [Article at Scopus](#)

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](#)

Fault-tolerant control of a grid-connected bipolar DC microgrid with high penetration of intermittent renewable energy

Senanayaka, Jagath; Khang, Huynh Van; **Rassõlkin, Anton; Vaimann, Toomas;** Zakis, Janis; Pomarnacki, Raimondas IECON 2022 - 48th Annual Conference of the IEEE Industrial Electronics Society 2022 / p. 1-6 <https://doi.org/10.1109/IECON49645.2022.9968572> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Improved fault classification and localization in power transmission networks using vae-generated synthetic data and machine learning algorithms

Khan, Muhammad Amir; **Asad, Bilal; Vaimann, Toomas; Kallaste, Ants;** Pomarnacki, Raimondas; Hyunh, Van Khang Machines 2023 / art. 963 <https://doi.org/10.3390/machines11100963> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Preliminary analysis of bearing current faults for predictive maintenance

Kudelina, Karolina; Raja, Hadi Ashraf; Vaimann, Toomas; Kallaste, Ants; Pomarnacki, Raimondas; Hyunh, Van Khang 2023 IEEE International Conference on Electric Machines and Drives (IEMDC) 2023 / 5 p. : ill <https://doi.org/10.1109/IEMDC55163.2023.10238934>