

Achieving of Magnus effect with Agros Suite

Lukin, Aleksandr; Demidova, Galina; Rassölkin, Anton Periodica polytechnica electrical engineering and computer science 2021 / p. 131-137 : ill <https://doi.org/10.3311/PPee.17743> [Journal metrics at Scopus](#) [Article at Scopus](#)

Aggregated conducted electromagnetic interference generated by DC/DC converters with deterministic and random modulation

Loschi, Hermes; Smolenski, Robert; Lezynski, Piotr; Nascimento, Douglas; **Demidova, Galina** Energies 2020 / art. 3698 <https://doi.org/10.3390/en13143698>

Aggregated conducted electromagnetic interference generated by DC/DC converters with deterministic and random modulation

Loschi, Hermes; Smolenski, Robert; Lezynski, Piotr; Nascimento, Douglas; **Demidova, Galina** Industrial and Technological Applications of Power Electronics Systems 2021 / p. 331-339 <https://doi.org/10.3390/en13143698>

Case study of supplementary PMSM for low-speed wind turbine

Poliakov, Nikolai; Vorobev, Konstantin; **Demidova, Galina; Rassölkin, Anton**; Ramensky, Dmitry 2021 XVIII International Scientific Technical Conference Alternating Current Electric Drives (ACED) : proceedings 2021 / 5 p. : ill <https://doi.org/10.1109/ACED50605.2021.9462253>

Comparison of synchronous reluctance machine and permanent magnet-assisted synchronous reluctance machine performance characteristics

Heidari, Hamidreza; Andriushchenko, Ekaterina; Rassölkin, Anton; Kallaste, Ants; Vaimann, Toomas; Demidova, Galina 2020 27th International Workshop on Electric Drives: MPEI Department of Electric Drives 90th Anniversary (IWED), Moscow, Russia, January 27-30, 2020 / 5 p. : ill <https://doi.org/10.1109/IWED48848.2020.9069583>

Concept of hardware-in-the-loop test platform for microgrid with multi-agent approach

Kuzin, Aleksei; Lukichev, Dmitry; **Demidova, Galina**; Anuchin, Alecksey 2020 IEEE 61st International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, Nov. 5-7, 2020 : conference proceedings 2020 <https://doi.org/10.1109/RTUCON51174.2020.9316626>

Cylindrical blades Magnus wind turbine optimization and control system

Alassaf, Omar; Lukin, Aleksandr; **Demidova, Galina**; Kozlov, Gleb; Volkhontsev, Andrey; Poliakov, Nikolai 29th International Workshop on Electric Drives: Advances in Power Electronics for Electric Drives (IWED) 2022 / p. 1-5 <https://doi.org/10.1109/IWED54598.2022.9722582>

Development of digital twin for robotic arm

Bratchikov, Stepan; Abdullin, Artur; **Demidova, Galina**; Lukichev, Dmitry 2021 IEEE 19th International Power Electronics and Motion Control Conference, The Silesian University of Technology Gliwice, Poland, 25 - 29 April, 2021 (PEMC) : proceedings 2021 / p. 717-723 <https://doi.org/10.1109/PEMC48073.2021.9432535>

Diagnostic possibilities of induction motor bearing currents

Kudelina, Karolina; Vaimann, Toomas; Rassölkin, Anton; Kallaste, Ants; Demidova, Galina; Karpovich, Dzmitry 2021 XVIII International Scientific Technical Conference Alternating Current Electric Drives (ACED) : proceedings 2021 / 5 p. : ill <https://doi.org/10.1109/ACED50605.2021.9462298>

Distributed energy laboratory concept focused on power electronics units

Poliakov, Nikolai; **Demidova, Galina; Zolov, Pavel** International Conference on Electromechanical and Power Systems (SIELMEN) 2021 / p. 387-392 <https://doi.org/10.1109/SIELMEN53755.2021.9600330>

Encoderless rotor position estimation of a switched reluctance drive operated under model predictive control

Anuchin, Alecksey; Shpak, Dmitry; **Demidova, Galina** 2020 IEEE 61st International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, Nov. 5-7, 2020 : conference proceedings 2020 <https://doi.org/10.1109/RTUCON51174.2020.9316621>

Experimental prototype of high-efficiency wind turbine based on Magnus effect

Lukin, Aleksandr; Demidova, Galina; Lukichev, Dmitry; Rassölkin, Anton; Kallaste, Ants; Vaimann, Toomas; Belahcen, Anouar 2020 27th International Workshop on Electric Drives: MPEI Department of Electric Drives 90th Anniversary (IWED), Moscow, Russia, January 27-30, 2020 / 6 p <https://doi.org/10.1109/IWED48848.2020.9069565>

Force-based feedback for haptic device of mobile assembly robot

Lukin, Aleksandr; **Demidova, Galina; Rassölkin, Anton; Vaimann, Toomas**; Roozbahani, Hamid 2020 27th International Workshop on Electric Drives: MPEI Department of Electric Drives 90th Anniversary (IWED), Moscow, Russia, January 27-30, 2020 / 5 p. : ill <https://doi.org/10.1109/IWED48848.2020.9069581>

Generative design in development of mechanical components for Magnus effect-based wind turbine

Lukin, Aleksandr; Perepelkina, Svetlana; Demidova, Galina; Lukichev, Dmitry; **Rassölkin, Anton; Vaimann, Toomas; Kallaste, Ants** 2020 XI International Conference on Electrical Power Drive Systems (ICEPDS), Saint-Petersburg, Russia, October 4-7, 2020

Implementation of Digital Twins for electrical energy conversion systems in selected case studies

Rassõlkin, Anton; Orosz, Tamas; **Demidova, Galina**; **Kuts, Vladimir**; **Rjabtšikov, Viktor**; **Vaimann, Toomas**; **Kallaste, Ants**
Proceedings of the Estonian Academy of Sciences 2021 / p. 19-39 : ill <https://doi.org/10.3176/proc.2021.1.03> https://doi.org/wp-content/plugins/kirj/pub/proc-1-2021-19-39_20210201183802.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Induction motor bearing currents - causes and damages

Kudelina, Karolina; **Vaimann, Toomas**; **Rassõlkin, Anton**; **Kallaste, Ants**; **Asad, Bilal**; **Demidova, Galina** 2021 28th International Workshop on Electric Drives : Improving Reliability of Electric Drives (IWED) 2021 / 5 p
<https://doi.org/10.1109/IWED52055.2021.9376354>

Industrial and technological applications of power electronics systems

2021 <https://doi.org/10.3390/books978-3-0365-0823-8>

Investigation of FEM software for Magnus Effect Simulation

Lukin, Aleksandr; **Demidova, Galina**; **Lukichev, Dmitry**; **Rassõlkin, Anton**; **Vaimann, Toomas**; **Kallaste, Ants** 2021 28th International Workshop on Electric Drives : Improving Reliability of Electric Drives (IWED) 2021 / 5 p
<https://doi.org/10.1109/IWED52055.2021.9376396>

Mechatronics technology and transportation sustainability : editorial

Rassõlkin, Anton; Tammi, Kari; **Demidova, Galina**; HosseinNia, Hassan Sustainability 2022 / art. 1671
<https://doi.org/10.3390/su14031671> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Model predictive control of a direct current motor utilizing lookup tables

Anuchin, Alecksey; **Bogdanov, Andrei**; **Demidova, Galina** International Conference on Power Drives Systems (ICPDS) 2020 / 4 p
<https://doi.org/10.1109/ICEPDS47235.2020.9249336>

Modern mechatronics and robotics education program: border cooperation between Estonia and Russia

Rassõlkin, Anton; **Vaimann, Toomas**; **Kudelina, Karolina**; **Demidova, Galina**; **Lukichev, Dmitry**; **Perepelkina, Svetlana**
Proceedings of the 2020 IEEE Global Engineering Education Conference (EDUCON) : Engineering Education for the Future in a Multicultural and Smart World, 27-30 April, 2020, Porto, Portugal 2020 / p. 1272-1277 : ill
<https://doi.org/10.1109/EDUCON45650.2020.9125406>

MPPT algorithms for wind turbines : review and comparison

Lukin, Aleksandr; **Demidova, Galina**; **Alassaf, Omar**; **Lukichev, Dmitry**; **Rassõlkin, Anton**; **Vaimann, Toomas** 29th International Workshop on Electric Drives: Advances in Power Electronics for Electric Drives (IWED) 2022 / p. 1-6
<https://doi.org/10.1109/IWED54598.2022.9722597>

Optimal control of automatic manipulator for elimination of galvanic line load oscillation

Autsou, Siarhei; **Rassõlkin, Anton**; **Vaimann, Toomas**; **Demidova, Galina**; **Saroka, Viktor**; **Karpovich, Dzmitry**; **Kallaste, Ants**
Periodica polytechnica electrical engineering and computer science 2021 / 15 p. : ill <https://doi.org/10.3311/PPee.15893> [Journal metrics at Scopus](#) [Article at Scopus](#)

An overview of fuzzy logic approaches for fault diagnosis in energy conversion devices

Demidova, Galina; **Rassõlkin, Anton**; **Vaimann, Toomas**; **Kallaste, Ants**; **Zakis, Janis**; **Suzdalenko, Alexander** 2021 28th International Workshop on Electric Drives : Improving Reliability of Electric Drives (IWED) 2021 / 7 p
<https://doi.org/10.1109/IWED52055.2021.9376389>

Preface to "Industrial and Technological Applications of Power Electronics Systems"

Strzelecki, Ryszard; **Demidova, Galina**; **Vinnikov, Dmitri** Industrial and Technological Applications of Power Electronics Systems 2021 / p. ix <https://doi.org/10.3390/books978-3-0365-0823-8>

Reducing of hanger-to-motor oscillations of galvanic line auto-operator

Autsou, Siarhei; **Rassõlkin, Anton**; **Demidova, Galina**; **Vaimann, Toomas**; **Karpovich, Dzmitry**; **Saroka, Viktor** 2020 XI International Conference on Electrical Power Drive Systems (ICEPDS), Saint-Petersburg, Russia, October 4-7, 2020 2020 / p. 43-48
<https://doi.org/10.1109/ICEPDS47235.2020.9249311>

Robotic glove prototype : development and simulation

Morozova, Elena; **Demidova, Galina**; **Rassõlkin, Anton** 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), November 15-17, 2021 : conference proceedings 2022 / p. 1-5
<https://doi.org/10.1109/RTUCON53541.2021.9711744>

Simulation of wind turbine vibrations

Andriushchenko, Ekaterina; **Kallaste, Ants**; **Vaimann, Toomas**; **Rassõlkin, Anton**; **Meshkov, Aleksandr**; **Heidari, Hamidreza**; **Demidova, Galina** 2020 27th International Workshop on Electric Drives: MPEI Department of Electric Drives 90th

Small magnus wind turbine : modeling approaches

Lukin, Aleksandr; **Demidova, Galina; Rassölkin, 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](#)

Time dependency of current harmonics for switch-mode power supplies

Iqbal, Muhammad Naveed; Kütt, Lauri; Asad, Bilal; Vaimann, Toomas; Rassölkin, 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](#)

Travel activity based stochastic modelling of load and charging state of electric vehicles

Iqbal, Muhammad Naveed; Kütt, Lauri; Lehtonen, Matti; Millar, Robert John; Püvi, Verner; **Rassölkin, Anton; Demidova, Galina** Sustainability 2021 / art. 1550, 14 p. : ill <https://doi.org/10.3390/su13031550> [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; Rassölkin, 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](#)

Wide-range operation of high step-up DC-DC converters with multimode rectifiers

Chub, Andrii; Vinnikov, Dmitri; Korkh, Oleksandr; Jalakas, Tanel; Demidova, Galina Electronics 2021 / art. 914, 20 p. : ill <https://doi.org/10.3390/electronics10080914> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Visual-interactive simulation models in electrical power engineering and mechatronics programs for distance education at ITMO university

Usoltcev, Aleksandr; Lukichev, Dmitry; Demidova, Galina; **Rassölkin, Anton; Vaimann, Toomas** 2020 XI International Conference on Electrical Power Drive Systems (ICEPDS), Saint-Petersburg, Russia, October 4-7, 2020 2020 / p. 280-284 : ill <https://doi.org/10.1109/ICEPDS47235.2020.9249365>

Идентификация карты намагничивания вентильно-индукторного электропривода в режиме реального времени
Demidova, Galina Известия СПбГЭТУ "ЛЭТИ" 2021 / с. 69–75 https://izv.etu.ru/assets/files/izvestiya-1_2021-69-75.pdf