

An advanced diagnostic approach for broken rotor bar detection and classification in DTC controlled induction motors by leveraging dynamic SHAP interaction feature selection (DSHAP-IFS) GBDT methodology

Khan, Muhammad Amir; Asad, Bilal; Vaimann, Toomas; Kallaste, Ants Machines 2024 / art. 495

<https://doi.org/10.3390/machines12070495> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Broken rotor bar fault detection using machine learning: Optimal frequency resolution

Koveshnikov, Semen; Bouharrouti, Nada El; Kudelina, Karolina; Naseer, Muhammad Usman; Vaimann, Toomas; Belahcen, Anouar 2024 International Conference on Electrical Machines (ICEM) 2024 / 6 p <https://doi.org/10.1109/ICEM60801.2024.10700228>

Detection of broken bars in frequency converter fed induction motor using Park's vector approach

Vaimann, Toomas; Belahcen, Anouar; Martinez, Javier; **Kilk, Aleksander** PQ2012 : 8th International Conference : 2012 Electric Power Quality and Supply Reliability : June 11-13, 2012, Tartu, Estonia : conference proceedings 2012 / p. 53-56 : ill

https://www.researchgate.net/publication/261051228_Detection_of_broken_bars_in_frequency_converter_fed_induction_motor_using_Park's_vector_approach

Detection of induction motor broken bars in grid and frequency converter supply

Vaimann, Toomas; Belahcen, Anouar; Martinez, Javier; **Kilk, Aleksander** Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and the 1st Congress of World Engineers and Riga Polytechnical Institute/RTU Alumni : 11-12 October 2012, Riga, Latvia : [abstracts] 2012 / p. 112 : ill

https://www.researchgate.net/publication/262674778_Detection_of_induction_motor_broken_bars_in_grid_and_frequency_converter_supply

Overview of sensorless diagnostic possibilities of induction motors with broken rotor bars [Electronic resource]

Vaimann, Toomas; Kallaste, Ants; Kilk, Aleksander Proceedings of the 12th International Scientific Conference Electric Power Engineering 2011, Kouty nad Desnou, Czech Republic, May 17-19, 2011 2011 / [4 p.] : ill. [CD-ROM]

<https://www.scinapse.io/papers/2583767167>

Park's vector approach for detection of broken rotor bars in frequency converter fed induced generator

Vaimann, Toomas; Belahcen, Anouar; Martinez, Javier; **Kilk, Aleksander** Proceedings of the 13th International Scientific Conference Electric Power Engineering 2012 : EPE 2012 : Brno. Vol. 2 2012 / p. 985-988 : ill

https://www.academia.edu/17399045/Parks_Vector_Approach_for_Detection_Broken_Rotor_Bars_in_Frequency_Converter_Fed_Induction_Generator

Synthetic Data-Driven Detection of Broken Rotor Bars in Induction Machines Under Adjusted Noise Level

Nuha, Nurjahan Amin; Siddik Injam, Md Tanbir; El Bouharrouti, Nada; Hemeida, Ahmed; Kudelina, Karolina; Naseer, Muhammad Usman; Belahcen, Anouar 2025 IEEE Workshop on Electrical Machines Design, Control and Diagnosis (WEMDCD) 2025 / 6 p

<https://doi.org/10.1109/WEMDCD61816.2025.11014141>

Using analysis of stator current for squirrel-cage induction motor rotor faults diagnostics

Vaimann, Toomas; Kallaste, Ants; Kilk, Aleksander Electrical and Control Technologies : Proceedings of the 6th International Conference on Electrical and Control Technologies (ECT-2011), May 5-6, 2011, Kaunas, Lithuania 2011 / p. 245-250 : ill