

Artificial Intelligence-Based Predictive Analytics for Battery Energy Storage Systems in Electric Vehicle Applications =
Tehisintellektil põhinev ennustav andmeanalüüs akupõhiste energiasalvestussüsteemide jaoks elektrisõidukites
Zequera, Rolando Antonio Gilbert 2025 https://www.ester.ee/record=b5758189*est <https://digikogu.taltech.ee/et/Item/7ecb1e38-a591-47c5-b37e-7c2e901d05f1> <https://doi.org/10.23658/taltech.61/2025>

Battery energy storage systems modelling based on remaining useful lifetime through regression algorithms and binary classifiers

Zequera, Rolando Antonio Gilbert 22nd International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Pärnu, Estonia, August 23-26, 2023 2023 / p. 93-94 : ill https://www.ester.ee/record=b5570906*est

Charge Diagnostics and State Estimation of Battery Energy Storage Systems Through Transformer Models

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants IEEE Access 2025 / p. 17733–17744 : ill <https://doi.org/10.1109/ACCESS.2025.3532858>

Clustering and outlier analysis for key performance indicators in battery energy storage systems applications

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227417>

Data science-based techniques for modelling and diagnostics of battery cells based on end-of-life criteria

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants 2023 International Conference on Electrical Drives and Power Electronics (EDPE) 2023 / 6 p <https://doi.org/10.1109/EDPE58625.2023.10274007>

Deep Learning methodology for charging management applications in battery cells based on Neural Networks

Zequera, Rolando Antonio Gilbert; Rjabtsikov, Viktor; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants IEEE Transactions on Intelligent Vehicles 2025 / p. 668-682 <https://doi.org/10.1109/TIV.2024.3417216>

Electric and hybrid vehicles : From smart energy storage systems to mechanical transmission

Sekhri, Even; Mohamed, Mahmoud Ibrahim Hassanin; Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton Smart Electric and Hybrid Vehicles : Advancements in Materials, Design, Technologies, and Modeling 2025 / p. 71-126 <https://doi.org/10.1002/9781394225040.ch3>

Health and charge indicators for battery energy storage systems in electric vehicles applications

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants 2022 IEEE 20th International Power Electronics and Motion Control Conference (PEMC) : Brasov, Romania, 25-28 Sept. 2022 : proceedings 2022 / p. 427-432 <https://doi.org/10.1109/PEMC51159.2022.9962858>

Kolmogorov-Arnold networks for algorithm design in battery energy storage system applications

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants Energy Reports 2025 / p. 2664-2677 <https://doi.org/10.1016/j.egy.2025.02.002>

Meetod, seade, arvutiloetav andmekandja juhiste salvestamiseks ja tarkvaratoode akude energiasalvestussüsteemi (BESS) haldamiseks, kasutades Kolmogorov-Arnoldi võrke (KAN-e)

Zequera, Rolando Antonio Gilbert 2025 <https://www.etis.ee/Portal/IndustrialProperties/Display/156fcb87-e2dc-46ea-80f0-6345f2b27baa>

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

Zequera, Rolando Antonio Gilbert; Rjabtsikov, Viktor; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants Applied sciences 2023 / art. 7597 <https://doi.org/10.3390/app13137597> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Overview of battery energy storage systems readiness for digital twin of electric vehicles

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants IET Smart Grid 2023 / p. 5-16 <https://doi.org/10.1049/stg2.12101> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Overview of battery energy storage systems readiness for digital twin of electric vehicles

Zequera, Rolando Antonio Gilbert 21st International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Pärnu, Estonia, June 15-18, 2022 2022 / p. 103-104 https://www.ester.ee/record=b5504019*est

Overview of digital twin platforms for EV applications

Mohamed, Mahmoud Ibrahim Hassanin; Rjabtsikov, Viktor; Zequera, Rolando Antonio Gilbert Sensors 2023 / art. 1414, 15 p. : ill <https://doi.org/10.3390/s23031414> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Remote data transfer and comparative performance through PyBaMM and mathematical techniques in battery

applications

Zequera, Rolando Antonio Gilbert; Rassölkin, Anton; Belolipetskaja, Diana 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144690>

Vehicle energy management system: a survey

Maradey Lázaro, Jessica Gissella; Rincón Quintero, Arly Dario; Garrido Silva, Gianina; **Zequera, Rolando Antonio Gilbert** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227455>