

Advanced Modelling Frameworks for the Digital Twin of an Autonomous Electric Vehicle Propulsion Drive System = Autonomoose elektrisõiduki veoelektrijami digitaalse kaksiku täiustatud modelleerimise raamistikud

Mohamed, Mahmoud Ibrahim Hassanin 2025 <https://digikogu.taltech.ee/et/Item/6df09867-e34b-45f1-b04e-b97c08b90589>
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Conceptual modelling of an EV-permanent magnet synchronous motor digital twin

Mohamed, Mahmoud Ibrahim Hassanin; Rjabtšikov, Viktor; Jegorov, Sergei; 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. 156-160 <https://doi.org/10.1109/PEMC51159.2022.9962943>

Development of emerging technology-driven NordPlus competence network in the Baltic and Nordic regions

Kunicina, Nadezhda; Bruzgien, Rasa; Narbutaite, Lina; **Rassõlkin, Anton; Mohamed, Mahmoud Ibrahim Hassanin; Balandin, Sergey** 2024 35th Conference of Open Innovations Association (FRUCT) : proceedings Proceedings of the 2024 / p. 407-412 : ill <https://doi.org/10.23919/FRUCT61870.2024.10516359>

Digital shadow of an electric vehicle-permanent magnet synchronous motor drive for real-time performance monitoring

Mohamed, Mahmoud Ibrahim Hassanin; Rjabtšikov, Viktor; Rassõlkin, Anton Digital twins and applications 2025 / 12 p <https://doi.org/10.1049/dgt2.12024>

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 development of an EV-permanent magnet synchronous motor as a virtual torque sensor

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Digital twin service unit development for an EV induction motor fault detection

Rjabtšikov, Viktor; Mohamed, Mahmoud Ibrahim Hassanin; Asad, Bilal; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants; Kuts, Vladimir; Stepien, Mariusz; Krawczyk, Mateusz 2023 IEEE International Conference on Electric Machines and Drives (IEMDC) 2023 / 5 p <https://doi.org/10.1109/IEMDC55163.2023.10239085>

Digital twin-based EV permanent magnet synchronous motor for condition monitoring

Mohamed, Mahmoud Ibrahim Hassanin 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. 19-20 : ill https://www.ester.ee/record=b5570906*est

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>

EV-Permanent magnet synchronous motor control strategy evaluation based on digital twin concept

Mohamed, Mahmoud Ibrahim Hassanin; Rjabtšikov, Viktor 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 5 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227410>

EV-powertrain test bench for digital twin development

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Identification and characterization of modulation scheme in an EV-PMSM control strategy for digital twin modeling

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ISEAUTO self-driving vehicle dynamic model verification

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Novel digital twin concept for industrial application. Study case: propulsion drive system

Jegorov, Sergei; Rassõlkin, Anton; Rjabtšikov, Viktor; Mohamed, Mahmoud Ibrahim Hassanin; Kuts, Vladimir Proceedings of ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022), 2B: Columbus, Ohio, USA, October 30 - November 3, 2022 2022 / art. IMECE2022-97243, V02BT02A011, 6 p. <https://doi.org/10.1115/IMECE2022-97243>

Overview of digital twin platforms for EV applications

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Overview on digital twin for autonomous electrical vehicles propulsion drive system

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Propulsion drives and control algorithms of electrical vehicles

Mohamed, Mahmoud Ibrahim Hassanin; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants Handbook of power electronics in autonomous and electric vehicles 2024 / p. 139-159 <https://doi.org/10.1016/B978-0-323-99545-0.00009-9>

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Teooria ja praktika sümbioos inseneriõppes ehk elektrialamite tulevik

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Validation of an EV-permanent magnet synchronous motor model based on analytical dynamic approach

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