

Comparative simulation study of pump system efficiency driven by induction and synchronous reluctance motors

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Electric drive for throttle control of centrifugal pump system

Gevorkov, Levon; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 5 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659845>

Energy-efficient predictive control of centrifugal multi-pump stations

Vodovozov, Valery; Lehtla, Tõnu; Bakman, Ilja; Raud, Zoja; Gevorkov, Levon PQ2016 : the 10th International Conference 2016 Electric Power Quality and Supply Reliability Conference (PQ) : August 29-31, 2016, Tallinn, Estonia : proceedings 2016 / p. 233-238 : ill <https://doi.org/10.1109/PQ.2016.7724119>

Flood prevention through condition monitoring of pumping stations

Gevorkov, Levon; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 5 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982305>

Hardware-in-the-loop simulator of a flow control system for centrifugal pumps

Gevorkov, Levon; Vodovozov, Valery; Lehtla, Tõnu; Raud, Zoja 2016 10th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings : Opera Nova's Congress Center, Bydgoszcz, Poland, 29. June - 01. July, 2016 2016 / p. 472-477 : ill <https://doi.org/10.1109/CPE.2016.7544234>

High-efficiency predictive control of pumping

Vodovozov, Valery; Bakman, Ilja; Raud, Zoja; Lehtla, Tõnu BEC 2016 : 2016 15th Biennial Baltic Electronics Conference : proceedings of the 15th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 3-5, 2016, Tallinn, Estonia 2016 / p. 203-206 : ill http://www.ester.ee/record=b2150914*est

Mixed pressure control system for a centrifugal pump

Gevorkov, Levon; Vodovozov, Valery 2017 11th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2017) : Cadiz, Spain, 4-6 April 2017 2017 / p. 364-369 : ill <https://doi.org/10.1109/CPE.2017.7915198>

Model for energy management of residential building heating system

Gevorkov, Levon; Šmidl, Vaclav; Sirovy, Martin; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 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/IWED48848.2020.9069503>

Model for torque estimation of pump system with horizontal pipe network

Gevorkov, Levon; Smidl, Vaclav; Sirovy, Martin; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 2019 26th International Workshop on Electric Drives : Improvement in Efficiency of Electric Drives (IWED) : Moscow Power Engineering Institute, Moscow, Russia, 30th of January – 2nd of February 2019 : proceedings 2019 / 5 p. : ill <https://doi.org/10.1109/IWED.2019.8664304>

Optimization of pump efficiencies with different pumps characteristics working in parallel mode

Koor, Margus; Vassiljev, Anatoli; Koppel, Tiit Advances in engineering software 2016 / p. 69-76 : ill <http://dx.doi.org/10.1016/j.advengsoft.2015.10.010>

Optimization of pump efficiency in a water distribution system

Koor, Margus; Vassiljev, Anatoli; Koppel, Tiit Proceedings of the Ninth International Conference on Engineering Computational Technology 2014 / Paper 91, p. 1-10 : ill

Performance improvement of pumps fed by the variable speed drives

Vodovozov, Valery; Bakman, Ilja Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2013 / p. 45-51 : ill

PLC-based flow rate control system for centrifugal pumps

Gevorkov, Levon; Vodovozov, Valery; Lehtla, Tõnu; Bakman, Ilja 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 239-243 : ill

PLC-based hardware-in-the-loop simulator of a centrifugal pump

Gevorkov, Levon; Vodovozov, Valery; Lehtla, Tõnu; Raud, Zoja 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 491-496 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266366>

PLC-based pressure control in multi-pump applications

Vodovozov, Valery; Gevorkov, Levon; Raud, Zoja Scientific Journal of Riga Technical University. Electrical, control and

Predictive control of a variable-speed multi-pump motor drive

Bakman, Ilja; Gevorkov, Levon; Vodovozov, Valery Proceedings : 2014 IEEE 23rd International Symposium on Industrial Electronics (ISIE) : Grand Cevahir Hotel and Convention Center, Istanbul, Turkey, 01-04 June, 2014 2014 / p. 1409-1414 : ill

Pressure control with minimal power consumption of a pumping station

Vodovozov, Valery; Raud, Zoja Recent Advances in Environmental and Earth Sciences and Economics : [proceedings of the EEDE 2015, GESE 2015, MANASE 2015, WHH 2015 : Zakynthos Island, Greece, July 16-20, 2015] 2015 / p. 242-245 : ill

Pumps energy consumption based on new EU legislation

Annus, Ivar; Uibo, D.; Koppel, Tiit Procedia engineering 2014 / p. 517-524 : ill

Simulation study of a centrifugal pumping plant's power consumption at throttling and speed control

Gevorkov, Levon; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 2017 IEEE 58th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : proceedings : Latvia, Riga, 12-13 October, 2017 2017 / [5] p. : ill <http://dx.doi.org/10.1109/RTUCON.2017.8124823>

Simulation study of the pressure control system for a centrifugal pump [Online resource]

Gevorkov, Levon; Vodovozov, Valery; Raud, Zoja 2016 57th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : October 13, 14, 2016 : conference proceedings 2016 / [5] p. : ill <https://doi.org/10.1109/RTUCON.2016.7763086>

Simulink based model for flow control of a centrifugal pumping system

Gevorkov, Levon; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 2018 25th International Workshop on Electric Drives: Optimization in Control of Electric Drives (IWED) 2018 / p. 1-4 : ill <https://doi.org/10.1109/IWED.2018.8321399>

Simulink based model of electric drive for throttle valve in pumping application

Gevorkov, Levon; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 2018 19th International Scientific Conference on Electric Power Engineering (EPE 2018) : Brno, Czech Republic, 16 - 18 May 2018 2018 / p. 256-259 : ill <https://doi.org/10.1109/EPE.2018.8395996>

Speed control strategy selection for multi-pump systems

Bakman, Ilja; Gevorkov, Levon 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 353-356 : ill

Study of the centrifugal pump efficiency at throttling and speed control

Gevorkov, Levon; Vodovozov, Valery BEC 2016 : 2016 15th Biennial Baltic Electronics Conference : proceedings of the 15th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 3-5, 2016, Tallinn, Estonia 2016 / p. 199-202 : ill http://www.ester.ee/record=b2150914*est