



Professor Associate

ALIREZA DAVARI

Power Electronics and Drives

FACTS

personal

+989121443912 (whatsapp)
davari@sru.ac.ir
ali13davari@yahoo.com

Areas of specialization

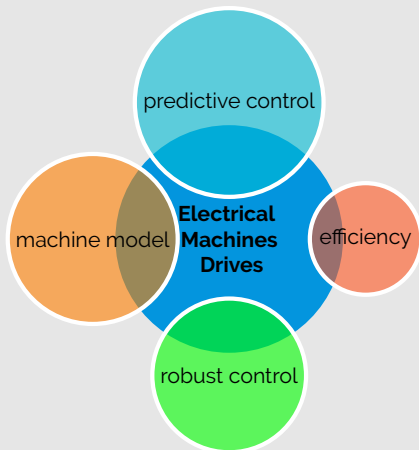
Electrical machines • Drives • Modeling and simulation • Automation • Power Electronics •

SKILLS

Languages

Persian | mother tongue
English | ● ● ●
German | ● ● ●
Turkish | ● ● ●
Spanish | ● ● ●

Interests



Software & programming

C/C++
MATLAB
Ansys Maxwell
html,javascript
L^AT_EX
MS Office
embedded systems
Altium PCB
AutoCAD

OS:

OBJECTIVES

As a researcher who has conducted scientific and laboratory research in the field of power electronics, electrical machines, and drives for about 10 years, I am very interested in keeping my research in line with the rapid pace of progress in electric vehicles and renewable energy. Because I feel that due to global warming, the future of human beings is tied to this technology.

WORK EXPERIENCE

2014-present

Shahid Rajaei University

IRAN · Tehran
Associate Professor (2019-present)
Assistant Professor (2014-2019)
Deputy Dean (2016-2021)
Power Group Manager (2015-2016)



2022-2023

Universidad Andres Bello

CHILE · Santiago
Visiting Research Professor (2022-2023)



2012-2014

Niroo Research Institute

IRAN · Tehran
Project Contract



EDUCATION

2006-2012

Ph.D.

SENSORLESS PREDICTIVE CONTROL OF INDUCTION MOTOR ·
Iran University of Science and Technology



2010-2011

Visiting Ph.D. Student

SENSORLESS PREDICTIVE CONTROL OF INDUCTION MOTOR ·
Technical University of Munich



2004-2006

M.Sc.

CURRENT ESTIMATION IN DISTRIBUTION LINE ·
Iran University of Science and Technology



1999-2004

B.Sc.

MIDI SYNTHESIZER WITH 8951 MICRO CONTROLLER ·
Semnan University



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[Linkedin \(click here\)](#)

HONORS AND AWARDS



- 2006** 1st rank GPA among all graduated M.Sc. students, Iran University of Science and Technology.
- 2018** The senior member of IEEE
- 2020** General chair of the 11th IEEE Power Electronics Drive System and Technology Conference (PEDSTC2020)
- 2014** Very Fast Data logger, Iran patent.



- 2020** Winner of the "Best lecturer of the year in electrical engineering school" award, Shahid Rajaee University, Iran.
- 2019** Winner of Best paper award in IEEE PRECEDE conference, China.
- 2019** Winner of the "Best author of the research paper" award, Shahid Rajaee University, Iran.
- 2018** Winner of Best paper award in IEEE PEDSTC conference, Iran.
- 2014** Winner of Best paper award in IEEE PEDSTC conference, Iran.
- 2012** Winner of Best paper award in IEEE PEDSTC conference, Iran.

A NUMBER OF PROJECTS & GRANTS

- 2025** Design and implementation of 1kW single-phase inverter for a UPS application, Fran Company, Iran.
- 2021** Design and implementation a robust predictive control method for induction motor drives, Shahid Rajaee University, Iran.
- 2021** Design and implementation a 3-level NPC inverter, Shahid Rajaee University, Iran.
- 2020** Design and implementation a motor drive system for automatic doors, Iran.
- 2016-2021** Increasing the efficiency of induction motor by variable speed drives, Niroo Research Institute, Iran
- 2018-2019** Predictive control for energy transformation with multilevel converters, Chile national scientific and technical research commission, Chile
- 2018-2019** Design and implement a firmware for MAPCS boards, MECO-MAPNA, Iran
- 2015-2016** Design and implementation of a controllable load system, Shahid Rajaee University, Iran

A NUMBER OF TALKS

- Oct. 2022** "Online Discrete Optimization of Weighting Factor in Model Predictive Torque and Flux Control of Induction Motor," , at: *Brussels, Belgium, IECON 2022, IEEE Conference (in English)*.
- Feb. 2021** "Tutorial: Sensorless Application of Predictive Control in Drives," , at: *PEDSTC 2021, IEEE Conference (in English)*.
- Sep. 2017** "Virtual Flux Model Predictive Direct Power Control (VF-MPDPC) of AFE Rectifier with New Current Prediction Method and Negative Sequence Elimination," , at: *Plzen, Czech Republic, IEEE PRECEDE Conference (in English)*.
- Sep. 2017** "Sensorless Predictive Control Method of Three-Phase AFE Rectifier with MRAS Observer for Robust Control," , at: *Plzen, Czech Republic, IEEE PRECEDE Conference (in English)*.
- Nov. 2016** "Predictive Torque Control of DFIG with Torque Ripple Reduction," , at: *Malacca, Malaysia, IEEE PECON Conference (in English)*.

THREE RECENT PUBLICATIONS

- 2025** Mahdi S Mousavi, Behnam Nikmaram, Abolfazl Nassaji, S Alireza Davari, Freddy Flores-Bahamonde, Jose Rodriguez, (2025) Applying model-free predictive current control with parallel cost functions for open-end winding synchronous reluctance motor, IEEE Transactions on Power Electronics..
- 2025** Zolfagharian, S Alireza Davari, Freddy Flores-Bahamonde, Jose Rodriguez. (2025) Distributed Predictive Control of the Two-stage Power Converter from the Battery to the Motor Considering the DC-Voltage Prediction,"IEEE Open Journal of the Industrial Electronics Society.
- 2025** S Alireza Davari, Mahdi S Mousavi, Behnam Nikmaram, Freddy Flores-Bahamonde, Fengxinag Wang, Patrick Wheeler, Jose Rodriguez (2025). Sensorless model-free predictive control of permanent magnet synchronous motor," , IEEE Transactions on Industrial Electronics..
- 2011-2025** more than 50 journal papers and more than 60 conference papers
[Google scholar \(click here\)](#)

TEACHING

Shandong University, China

Graduate	Model Predictive Control in Power Electronics	2020
Shahid Rajaee University		
Undergraduate	Fundamentals of Industrial Electronics	2013-2021
Undergraduate	Electric Machinery 1	2013-2025
Undergraduate	Electric Machinery 2	2013-2025
Undergraduate	Electric Machinery 3	2013-2025
Undergraduate	Micro controllers	2013-2015
Undergraduate	Laboratory of Electric Machinery 1	2013-2025
Undergraduate	Laboratory of Electric Machinery 2	2013-2021
Undergraduate	Logic Circuits	2013-2015
Undergraduate	Laboratory of Electric Circuits	2013-2025
Graduate	Advanced Power Electronics	2013-2025
Graduate	Electric Motor Drives	2013-2025

Iran University of Science and Technology

Undergraduate	Fundamentals of Electrical Engineering	2007-2009
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REFERENCES

Prof. Ralph Kennel, TUM, Germany	ralph.kennel@tum.de
Prof. Jose Rodriguez, USS, Chile	jose.rodriguezp@uss.cl
Prof. Davood Khaburi, IUST, Iran	khaburi@iust.ac.ir

COMPLETE LIST OF PAPERS

Journal Papers

- 1 S. A. Davari, D. A. Khaburi and R. Kennel, "An Improved FCS-MPC algorithm for Induction Motor with Imposed Optimized Weighting Factor," IEEE Tran. Power Elec., Vol.27, No. 3, pp. 1540 - 1551, Mar. 2012. **contribution percentage:100%**
- 2 S. A. Davari, D. A. Khaburi, F. Wang and R. Kennel "Using Full Order and Reduced Order Observers for Robust Sensorless Predictive Torque Control of Induction Motors," IEEE Tran. Power Elec, Vol. 27, No. 7, pp. 3423-3433, Jul. 2012. **contribution percentage:100%**
- 3 S. A. Davari, D. A. Khaburi and R. Kennel, "Robust Sensorless Predictive Control of Induction Motors with Sliding Mode Voltage Model Observer," Turkish Journal of electrical engineering and Computer Science, Volume 21, Issue 6, pp. 1539-1552, Nov. 2013. **contribution percentage:100%**
- 4 F. Wang, Z. Zhang, S.A. Davari, R. Fotouhi, D. Arab Khaburi, J. Rodriguez and R. Kennel, "An Encoderless Predictive Torque Control for an Induction Machine with a Revised Prediction Model and EFOSMO," IEEE Tran. Ind. Elec., Vol.61, No. 12, pp. 6635 - 6644, Dec. 2014. **contribution percentage:40%**
- 5 F. Wang, Z. Zhang, S.A. Davari, J. Rodriguez and R. Kennel, "An experimental assessment of finite-state Predictive Torque Control for electrical drives by considering different online-optimization methods," Elsevier Journal of Control Engineering Practice, Vol.31, 2014. **contribution percentage:50%**
- 6 F. Wang, S. A. Davari, Z. Chen, Z. Zhang, D. Arab Khaburi, J. Rodriguez, and R. Kennel, "Finite Control Set Model Predictive Torque Control of Induction Machine with a Robust Adaptive Observer," IEEE Tran. Ind. Electron., Vol.64, No. 4, pp. 2631 - 2641, Apr. 2017. **contribution percentage:50%**
- 7 S. A. Davari, "Predictive Direct Angle Control of Induction Motor," IEEE Tran. Ind. Electron., Vol. 63, No. 8, pp. 5276-5284, Aug. 2016. **contribution percentage:100%**
- 8 F. Wang, S. A. Davari, Z. Chen, Z. Zhang, D. Arab Khaburi, J. Rodriguez, and R. Kennel, "Finite Control Set Model Predictive Torque Control of Induction Machine with a Robust Adaptive Observer," IEEE Tran. Ind. Electron, Vol. 64, No. 4, pp. 2631-2641, Apr. 2017. **contribution percentage:60%**
- 9 M. Mokhtari Vayeghan1, and S. A. Davari, "Torque ripple reduction of DFIG by a new and robust predictive torque control method," IET Renewable Power Generation, Vol. 11 Iss. 11, pp. 1345-1352, Sept. 2017. **contribution percentage:100%**
- 10 S. A. Davari, F. Wang, and R. M. Kennel, "Robust Deadbeat Control of Induction Motor by Stable MRAS Speed and Stator Estimation," IEEE Tran. Ind. Inf., vol. 14, no. 1, pp. 200-209, Jan. 2018. **contribution percentage:100%**
- 11 S. A. Davari and J. Rodriguez, "Predictive Direct Voltage Control of Induction Motor with Mechanical Model Consideration for Sensorless Applications," IEEE J. Emerg. Sel. Top. Power Electron., p. 1, 2018. **contribution percentage:100%**
- 12 M. Mehreganfar, M. H. Saeedinia, S. A. Davari, C. Garcia, J. Rodriguez, "Sensorless Predictive Control of AFE Rectifier With Robust Adaptive Inductance Estimation," IEEE Tran. Ind. Inf., vol. 15, no. 6, pp. 3420-3431, Jun. 2018. **contribution percentage:90%**
- 13 A. Askari, B. Zarei, S. A. Davari, F. Wang, R. Kennel, "A Modified Closed loop Voltage Model Observer Based on Adaptive Direct Flux Magnitude Estimation in Sensorless Predictive Direct Voltage Control of Induction Motor" IEEE Tran. Pow. Elec., vol. 35, no. 1, pp. 630-639, Jan. 2020. **contribution percentage:100%**
- 14 F. Wang, H. Xie, Q. Chen, S. A. Davari, J. Rodriguez, "Parallel Predictive Torque Control for Induction Machines without Weighting Factors" IEEE Tran. Ind. Elec., vol. 35, no. 2, pp. 1779-1788, Feb. 2020. **contribution percentage:50%**
- 15 S. R. Eftekhari, S. A. Davari, P. Naderi, C. Garcia and J. Rodriguez, "Robust Loss Minimization for Predictive Direct Torque and Flux Control of an Induction Motor With Electrical Circuit Model," in IEEE Transactions on Power Electronics, vol. 35, no. 5, pp. 5417-5426, May 2020. **contribution percentage:100%**
- 16 S. A. Davari, M. Norambuena, V. Nekoukar, C. Garcia and J. Rodriguez, "Even-Handed Sequential Predictive Torque and Flux Control," in IEEE Transactions on Industrial Electronics, vol. 67, no. 9, pp. 7334-7342, Sept. 2020. **contribution percentage:90%**
- 17 A. Aliaskari, B. Zarei, S. A. Davari, "Using the Poles Shifting Method in a New Reduced-Order Observer for Direct Torque Control Technique in Induction Motor," Tabriz Journal of electrical engineering, accepted. **contribution percentage:90%**
- 18 M. H. Saeedinia, M. Mehreganfar, and S. A. Davari, "AFE Rectifier Control Based on Virtual Flux Direct Power Control and Power Ripple Elimination under Unbalanced Network Condition," Tabriz Journal of electrical engineering, accepted. **contribution percentage:90%**
- 19 A. Mirzakhani, R. Ghandehari, S. A. Davari, "A New DPC-based Control Algorithm for Improving the Power Quality of DFIG in Unbalance Grid Voltage Conditions" International Journal of Renewable Energy Research, vol. 8, no. 4, 2018. **contribution percentage:100%**
- 20 Soroush Ghabusnejad, Ashkan Majdi, S. A. Davari, "Using P&O Based Sensorless Method In Single- Axis Solar Tracker" International Journal of Renewable Energy Research, vol. 9, no. 1, 2019. **contribution percentage:90%**
- 21 A. Mirzakhani, R. Ghandehari, S. A. Davari, "Modeling and dynamic response of double-fed induction generator and backto-back converters in unbalanced grid voltage conditions" Wind Engineering, May 2019. **contribution percentage:60%**

- 22 S. A. Davari, V. Nekoukar, C. Garcia and J. Rodriguez, "Online Weighting Factor Optimization by Simplified Simulated Annealing for Finite Set Predictive Control," in *IEEE Transactions on Industrial Informatics*, doi: 10.1109/TII.2020.2981039. **contribution percentage:100%**
- 23 H. Rostami, M. R. Azizian, S. A. Davari and S. Mahdiioun Rad, "Single-Phase Three-Level Neutral-PointClamped Inverter Based on Modified Z-Source Network With Reduced Voltage Stress on Capacitors," in *IEEE Journal of Emerging and Selected Topics in Power Electronics*, vol. 9, no. 1, pp. 980-993, Feb. 2021, doi: 10.1109/JESTPE.2020.2966286. **contribution percentage:50%**
- 24 A. Fereidooni, S. A. Davari, C. Garcia and J. Rodriguez, "Simplified Predictive Stator Current Phase Angle Control of Induction Motor With a Reference Manipulation Technique," in *IEEE Access*, vol. 9, pp. 5417354183, 2021, doi: 10.1109/ACCESS.2021.3070790. **contribution percentage:100%**
- 25 B. Nikmaram, S. A. Davari, P. Naderi, C. Garcia and J. Rodriguez, "Sensorless Simplified Finite Control Set Model Predictive Control of SynRM Using Finite Position Set Algorithm," in *IEEE Access*, vol. 9, pp. 4718447193, 2021, doi: 10.1109/ACCESS.2021.3068085. **contribution percentage:100%**
- 26 M. S. Mousavi, S. A. Davari, V. Nekoukar, C. Garcia and J. Rodriguez, "A Robust Torque and Flux Prediction Model by a Modified Disturbance Rejection Method for Finite-Set Model-Predictive Control of Induction Motor," in *IEEE Transactions on Power Electronics*, vol. 36, no. 8, pp. 9322-9333, Aug. 2021, doi: 10.1109/TPEL.2021.3054242. **contribution percentage:100%**
- 27 M. S. Mousavi, S. A. Davari, V. Nekoukar, C. Garcia and J. Rodriguez, "Finite-Set Model Predictive Current Control of Induction Motors by Direct Use of Total Disturbance," in *IEEE Access*, vol. 9, pp. 107779-107790, 2021, doi: 10.1109/ACCESS.2021.3100506. **contribution percentage:100%**
- 28 JAAFARI, Alireza; DAVARI, S. Alireza; GARCIA, Cristian; RODRIGUEZ, Jose, "Using vertical areas in finite set model predictive control of a three-level inverter aimed at computation reduction," *Turkish Journal of Electrical Engineering & Computer Sciences*. 2022, Vol. 30 Issue 1, p18-34. 17p. **contribution percentage:100%**
- 29 C. Garcia et al., "FCS-MPC Based Pre-Filtering Stage for Computational Efficiency in a Flying Capacitor Converter," in *IEEE Access*, vol. 9, pp. 111039-111049, 2021, doi: 10.1109/ACCESS.2021.3103070. **contribution percentage:40%**
- 30 J. Rodriguez et al., "Latest Advances of Model Predictive Control in Electrical Drives—Part I: Basic Concepts and Advanced Strategies," in *IEEE Transactions on Power Electronics*, vol. 37, no. 4, pp. 3927-3942, April 2022, doi: 10.1109/TPEL.2021.3121532. **contribution percentage:20%**
- 31 J. Rodriguez et al., "Latest Advances of Model Predictive Control in Electrical Drives—Part II: Applications and Benchmarking With Classical Control Methods," in *IEEE Transactions on Power Electronics*, vol. 37, no. 5, pp. 5047-5061, May 2022, doi: 10.1109/TPEL.2021.3121589. **contribution percentage:20%**
- 32 M. S. Mousavi, S. Alireza Davari, V. Nekoukar, C. Garcia and J. Rodriguez, "Integral Sliding Mode ObserverBased Ultra-Local Model for Finite-Set Model Predictive Current Control of Induction Motor," in *IEEE Journal of Emerging and Selected Topics in Power Electronics*, doi: 10.1109/JESTPE.2021.3110797. **contribution percentage:100%**
- 33 M. S. Mousavi, S. A. Davari, F. Flores-Bahamonde, C. Garcia, and J. Rodriguez, "Sampling error-based model-free predictive current control of open-end winding induction motor with simplified vector selection," *IET Electric Power Applications*, doi:10.1049/elp2.12273 **contribution percentage:10%**
- 34 S. A. Davari, V. Nekoukar, C. Garcia and J. Rodriguez, "Online Weighting Factor Optimization by Simplified Simulated Annealing for Finite Set Predictive Control," in *IEEE Transactions on Industrial Informatics*, vol. 17, no. 1, pp. 31-40, Jan. 2021, doi: 10.1109/TII.2020.2981039.
- 35 Ali Mirzakhani, Reza Ghandehari, S. Alireza Davari, Performance improvement of DPC in DFIGs during unbalanced grid voltage based on extended power theory, *Ain Shams Engineering Journal*, Volume 12, Issue 2, 2021, Pages 1775-1786
- 36 M. S. Mousavi, S. A. Davari, V. Nekoukar, C. Garcia and J. Rodriguez, "Integral Sliding Mode Observer-Based Ultralocal Model for Finite-Set Model Predictive Current Control of Induction Motor," in *IEEE Journal of Emerging and Selected Topics in Power Electronics*, vol. 10, no. 3, pp. 2912-2922, June 2022, doi: 10.1109/JESTPE.2021.3110797.
- 37 M. S. Mousavi et al., "Predictive Torque Control of Induction Motor Based on a Robust Integral Sliding Mode Observer," in *IEEE Transactions on Industrial Electronics*, vol. 70, no. 3, pp. 2339-2350, March 2023, doi: 10.1109/TIE.2022.3169831.
- 38 O. Asvadi-Kermani, B. Felegari, H. Momeni, S. A. Davari and J. Rodriguez, "Dynamic Neural-based Model Predictive Voltage Controller for an Interleaved Boost Converter with Adaptive Constraint Tuning," in *IEEE Transactions on Industrial Electronics*, doi: 10.1109/TIE.2023.3234138.
- 39 Razmi, Darioush, Oluleke Babayomi, Alireza Davari, Tohid Rahimi, Yuntao Miao, and Zhenbin Zhang. "Review of model predictive control of distributed energy resources in microgrids." *Symmetry* 14, no. 8 (2022): 1735.
- 40 M. S. Mousavi, S. Alireza Davari, V. Nekoukar, C. Garcia and J. Rodriguez, "Computationally Efficient Model-Free Predictive Control of Zero-Sequence Current in Dual Inverter Fed Induction Motor," in *IEEE Journal of Emerging and Selected Topics in Power Electronics*, doi: 10.1109/JESTPE.2022.3174733.
- 41 D. Ke, F. Wang, X. Yu, S. A. Davari and R. Kennel, "Predictive Error Model-Based Enhanced Observer for PMSM Deadbeat Control Systems," in *IEEE Transactions on Industrial Electronics*, vol. 71, no. 3, pp. 2242-2252, March 2024, doi: 10.1109/TIE.2023.3269476

- 42 M. S. Mubarak, T. -H. Liu, S. A. Davari and J. Rodriguez, "Constrained Predictive Controllers for High-Performance Sensorless IPMSM Drive Systems With Full-Range Speed Operations," in *IEEE Transactions on Power Electronics*, vol. 39, no. 4, pp. 4612-4623, April 2024, doi: 10.1109/TPEL.2024.3352021.
- 43 M. Lotfollahzadegan, S., Davari, S. A., Mousavi, M. S., Chegeni, A., Tarisciotti, L., and Rodriguez, J. (2024). Hexagonal zoning deadbeat model predictive control of induction motor. *IET Electric Power Applications*.
- 44 Davari, S. A., Nekoukar, V., Azadi, S., Flores-Bahamonde, F., Garcia, C., and Rodriguez, J. (2023). Discrete Optimization of Weighting Factor in Model Predictive Control of Induction Motor. *IEEE Open Journal of the Industrial Electronics Society*, 4, 573-582.
- 45 Li, Z., Wang, F., Xie, H., Ke, D., Ye, T., Davari, S. A., and Kennel, R. (2023). Data-Driven Diagnosis of PMSM Drive with Self-Sensing Signal Visualization and Deep Transfer Learning. *IEEE Transactions on Energy Conversion*.
- 46 S Alireza Davari, Shirin Azadi, Freddy Flores-Bahamonde, Fengxinag Wang, Patrick Wheeler, Jose Rodriguez (2024). Compensating the measurement error in model-free predictive control of induction motor via kalman filter-based ultra-local model. *IEEE Transactions on Power Electronics*.
- 47 Behnam Nikmaram, Mahdi S Mousavi, S Alireza Davari, Freddy Flores-Bahamonde, Patrick Wheeler, Jose Rodriguez, Mehdi Fazeli, (2024). Full-Cycle Iterative Observer: A Comprehensive Approach for Position Estimation in Sensorless Predictive Control of SynRM. *IEEE Journal of Emerging and Selected Topics in Power Electronics*.
- 48 Majid Akbari, S Alireza Davari, Reza Ghandehari, Freddy Flores-Bahamonde, Jose Rodriguez. (2024). Model-Free Predictive Current Controller for Common Mode Voltage Stabilization by Finite odd Virtual Vector set. *IEEE Open Journal of the Industrial Electronics Society*.
- 49 Catalina González-Castaño, Margarita Norambuena, Alex Navas-Fonseca, Freddy Flores-Bahamonde, S Alireza Davari, Hector Young, Rasool Heydari, José Rodriguez, (2025), Model-free predictive control of five-level T-type nested neutral point clamped converter. *IEEE Journal of Emerging and Selected Topics in Power Electronics*.
- 50 Mahdi S Mousavi, Behnam Nikmaram, Abolfazl Nassaji, S Alireza Davari, Freddy Flores-Bahamonde, Jose Rodriguez, (2025) Applying model-free predictive current control with parallel cost functions for open-end winding synchronous reluctance motor, *IEEE Transactions on Power Electronics*.
- 51 Reza Zolfagharian, S Alireza Davari, Freddy Flores-Bahamonde, Jose Rodriguez. (2025) Distributed Predictive Control of the Two-stage Power Converter from the Battery to the Motor Considering the DC-Voltage Prediction. *IEEE Open Journal of the Industrial Electronics Society*.
- 52 S Alireza Davari, Mahdi S Mousavi, Behnam Nikmaram, Freddy Flores-Bahamonde, Fengxinag Wang, Patrick Wheeler, Jose Rodriguez (2025). Sensorless model-free predictive control of permanent magnet synchronous motor, *IEEE Transactions on Industrial Electronics*.
- 53 MS Mousavi, SA Davari, R Zolfagharian, C Garcia, F Flores-Bahamonde (2025). Gradient Descent Algorithm Based on Extended State Observer for Loss Minimization of Ultralocal Model Predictive Controlled PMSM Drives. *IEEE Transactions on Transportation Electrification*.

Conference Papers

- 1 S. A. Davari, S. M. Shahrtash, "Current Estimation in Distribution Lines Based on Environmental Electromagnetic Field Measurement," First Power System Protection Conference, Amirkabir University of Technology, Jan 2007.
- 2 A. Kazemi, S. A. Davari, "A Reference Detection Algorithm for Series Active Power Filters, Aimed at Current Harmonics and Reactive Power Compensation," Industrial Electronics and Applications, ICIEA 2007. 2nd IEEE Conference 23-25 May 2007 Page(s):1761 - 1766.
- 3 S. A. Davari, S. M. Shahrtash, "Fault Classification in Distribution Power Lines Based on Magnetic Field Measurement and Fourier Transform," IEEE , 16-20 July 2007 page(s):1 - 5.
- 4 S. A. Davari, S. M. Shahrtash, "Fault Classification in Distribution Power Lines Based on Magnetic Field Measurement and Wavelet Transform," IEEE IPEC 2007.
- 5 S. A. Davari, D. Arab Khaburi, "Sensorless Predictive Torque Control by means of Sliding Mode Observer," IEEE Power and Energy Conference, PECon , 1-3 Dec. 2008 Page(s):707 - 711.
- 6 S. A. Davari, D. Arab Khaburi, "A Sensorless Predictive Torque Control by means of Sliding Mode Observer," 16th Iranian Conference on Electrical Engineering, ICEE 2008 (Persian).
- 7 S. A. Davari, D. Arab Khaburi, "Sensorless Vector Control of Induction Motor with Adaptive Fuzzy Method," 17th Iranian Conference on Electrical Engineering, ICEE 2009 (Persian).
- 8 S. Alireza Davari, Farhad montazeri and Davood Arab Khaburi, "A Comparative Study of Matrix Converter Based DTC with Complete Vectors Application and an Improved Predictive Torque Control Using Two- Level Inverter," IEEE 6th International Conference on Electrical and Electronics Engineering, ELECO, Nov. 2009, p.p. 410-414.
- 9 S. Alireza Davari, Farshad montazeri and Davood Arab Khaburi, "Efficiency Assessment of Utilizing Photo Voltaic Cells for High Efficiency DTC Branched Methods," 24th Power System Conference, PSC , Oct. 2009.
- 10 S.A. Davari, E. Hasankhan and D.A. Khaburi, "A Comparative Study of DTC-SVM with Three- Level Inverter and an Improved Predictive Torque Control Using Two-Level Inverter," 2nd IEEE Power Electronics, Drive Systems and Technologies Conference (PEDSTC), pp. 379-384, 2011.
- 11 S. A. Davari and D. A. Khaburi, "Sensorless Predictive Torque Control of Induction Motor by means of Reduced Order Observer," 2nd IEEE Power Electronics, Drive Systems and Technologies Conference (PEDSTC), pp. 484-488, 2011.
- 12 S. A. Davari, D. A. Khaburi, P. Stolze and R. Kennel, "An Improved Finite Control Set - Model Predictive Control (FCS-MPC) algorithm with Imposed Optimized Weighting Factor", EPE 2011.
- 13 Fengxiang Wang , S. Alireza Davari, Davood A. Khaburi and Ralph Kennel, "Sensorless Model Predictive Torque Control for Induction Machine by using the Sliding Mode Full- Order Observer," SLED 2011.
- 14 S. A. Davari, D. A. Khaburi, F. Wang and R. Kennel "Robust Sliding Mode Voltage Model Observer for Sensorless PTC of Induction Motors," PEDSTC 2012 . (best paper award)
- 15 S. A. Davari, D. A. Khaburi, and R. Kennel, "Using a weighting factor table for FCS-MPC of induction motors with extended prediction horizon," IECON 2012
- 16 S. A. Davari, and D. A. Khaburi, "Using Predictive Control and q-ZSI to Drive an Induction Motor Supplied by a PV Generator," PEDSTC 2014. (best paper award)
- 17 S. A. Davari, "Predictive rotor control of DFIG supplied with back-back converters for variable speed wind turbine application," IEEE 23rd International Symposium on Industrial Electronics (ISIE), pp. 1415 – 1419, Jun. 2014.
- 18 S. A. Davari, and D. A. Khaburi, "Voltage Model Observer Based Encoderless Predictive Control of DFIG for Wind Turbine Applications," PEDSTC2015.
- 19 B. Mirshekarpour, and S. A. Davari, "Efficiency Optimization and Power Management in a Stand-Alone Photovoltaic (PV) Water Pumping System," PEDSTC 2016.
- 20 M. Mokhtari, and S. A. Davari, and , "Predictive Torque Control of DFIG with Torque Ripple Reduction," PECON 2016.
- 21 A. Aliaskari, and S. A. Davari, "An Improved Reduced Order Observer with Added Flux Feedback Term for Sensorless DTC Application," PEDSTC 2017.
- 22 B. Zarei, and S. A. Davari, "A Novel MRAS Observer Based on Direct Stator Flux Estimation in Sensorless Direct Torque Control Application," PEDSTC 2017.
- 23 M. Mehreganfar, and S. A. Davari, "Sensorless Predictive Control Method of Three-Phase AFE Rectifier with MRAS Observer for Robust Control," PRECEDE 2017.
- 24 M. H. Saeedinia, and S. A. Davari, "Virtual Flux Model Predictive Direct Power Control (VF-MPDPC) of AFE Rectifier with New Current Prediction Method and Negative Sequence Elimination," PRECEDE 2017.
- 25 X. Mei, X. Lu, A. Davari, E. A. Jarchlo, F. Wang, and R. Kennel, "Torque disturbance observer based model predictive control for electric drives," in 2018 9th Annual Power Electronics, Drives Systems and Technologies Conference (PEDSTC), 2018, pp. 499–504.
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