


Mostafa Vahedipour-Dahraie, Ph.D.

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Last name	Vahedipour-Dahraie
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Professional experience		
Period from–to	Employer/Institution	Position
2011-now	Ministry of Science, Research and Technology, University of Birjand	Assistant professor
(2016-2017)	Department of Energy Technology, Aalborg University, Denmark	Visiting Researcher

Education			
Period (from–to)	University or institution	Degree or qualification	Subject
2013-2017	University of Birjand	Ph.D	Demand Response Scheduling in an Autonomous Microgrid Considering Security
2009-2011	University of Birjand	MSc	Analyzing Voltage Stability of Power Systems with Wind Farm Implemented with Induction Generators
2001- 2006	Babol University of Technology	BSc	Study on Renewable Energy Resources

Teaching experience		
Period (from–to)	University or institution	Course taught
2011 up to now	University of Birjand	power system analysis I & II electric machinery I, II & III electrical circuits I & II ordinary differential equations Electrical Installation designs high voltage substations design

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		power plants and generation of electrical energy
2011-2017	University of Birjand	Superior in electrical machinery, University of Birjand
2011-2017	University of Birjand	Superior in electrical laboratory, University of Birjand
2014-2017	University of Birjand	Superior in power system analysis laboratory, University of Birjand
2018-2019	Technology School of Ferdows, University of Birjand	Holding photovoltaic workshops in University of Birjand

Supervision of master's projects		
Year	Title of thesis/dissertation	Degree
2015	Optimal energy management of smart buildings	MSC
2015	Proposing a test system for microgrids with considering multi energy micro-sources	MSC

Description of the most important projects	
Short description of project	Your position/ role in the project
Photovoltaic project in Electrical Distribution Network of Company, Ferdows, South Khorasan (2016-2019).	Leader of research group

Main topics of research
Demand Side Management Power Systems Operation and Planning Power System Reliability and Security Microgrids Distributed Renewable Generation

Presentations
Presentation about "Autonomous microgrid for rural electrification in Iran" in University of Birjand (May 2016).
Presentation about "Demand Side Management" in University of Birjand (May 2017).

Membership in professional societies and academic committees, and position	
Society/committee	Position
Saha Niroo Savis Photovoltaic Company (2018-now).	Manager
Vice chancellor for Academic and Post Graduate Affairs (2014 up to 2016 and 2019.)	Executive director
President of Ferdows Faculty of Engineering	Now
Head of Smart Home Research Center laboratory- Ferdows Faculty of Engineering	Now

Prizes and awards
Honored researcher among all faculties in University of Birjand (2018).
Being awarded as favorite lecturer in University of Birjand in May 2014.
Honored Faculty among all of the faculties of power system in University of Birjand (2011, 2012, 2013 and 2014).
Honored researcher among all faculties in Technology School of Ferdows, University of Birjand (2012).

Publications list:

A) Publications in journals

- [1] **M. Vahedipour-Dahraie**; A. Anvari-Moghaddam; J.M. Guerrero, "Evaluation of reliability in risk-constrained scheduling of autonomous microgrids with demand response and renewable resources," *IET Renewable Power Generation*, vol. 12, no. 6, pp. 657-667, 2018.
- [2] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; H.R. Najafi; A. Anvari-Moghaddam; and J.M. Guerrero, "Stochastic Security and Risk-Constrained Scheduling for an Autonomous Microgrid with Demand Response and Renewable Energy Resources," *IET Renewable Power Generation*, vol. 11, no. 14, pp. 1812 – 1821, 2017.
- [3] H. Rashidizadeh-Kermani, **M. Vahedipour-Dahraie**, M. Shafie-khah, and P. Siano, "A Regret-based Stochastic Bi-level Framework for Scheduling of DR Aggregator under Uncertainties," Accepted and to be published in *IEEE Transaction on Smart Grid*.
- [4] **Mostafa Vahedipour-Dahraie**; Homa Rashidizadeh-Kermani, Amjad Anvari-Moghaddam, Pierluigi Siano, "Flexible stochastic scheduling of microgrids with islanding operation complemented by optimal offering strategies," *CSEE Journal of Power and Energy Systems (Early Access)*, 2020, pp. 1 – 10.
- [5] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; A. Anvari-Moghaddam; and J.M. Guerrero, "Stochastic Risk-Constrained Scheduling of Renewable-Powered Autonomous Microgrids With Demand Response Actions: Reliability and Economic Implications," *IEEE Transactions on Industry Applications*, vol. 56, no. 2, 2020, pp. 1882 – 1895.
- [6] **M. Vahedipour-Dahraie**, H.R. Najafi, A. Anvari-Moghaddam, J.M. Guerrero, "Security-constrained unit commitment in AC microgrids considering stochastic price-based demand response and renewable generation," *International Transactions on Electrical Energy Systems*, vol. 28, no. 9, e2596. 2018.
- [7] H. Rashidizadeh-Kermani; **M. Vahedipour-Dahraie**; M. Shafie-khah, J.P.S. Catalão, "A bi-level risk-constrained offering strategy of a wind power producer considering demand side resources," *International Journal of Electrical Power and Energy Systems*, vol. 104, pp. 562-574, 2019.
- [8] Homa Rashidizadeh-Kermani, **M. Vahedipour-Dahraie**, Miadreza Shafie-khah, Joao P.S. Catalao, "Stochastic programming model for scheduling demand response aggregators considering uncertain market prices and demands," *International Journal of Electrical Power and Energy Systems*, vol. 113, pp. 528–538, 2019.
- [9] **M. Vahedipour-Dahraie**; H. R. Najafi; A. Anvari-Moghaddam; J.M. Guerrero "Study the Effect of Time-Based Rate Demand Response Programs on Stochastic Day-Ahead Energy and Reserve Scheduling in Islanded Residential Microgrids, *Applied. Sciences*, vol. 7, no 4, pp: 1-19, 2017.
- [10] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; H.R. Najafi; A. Anvari-Moghaddam; and J.M. Guerrero, "Coordination of EVs Participation for Load Frequency Control in Isolated Microgrids," *Applied. Sciences*, vol. 7, 539, pp. 1-16, 2017.
- [11] **M. Vahedipour-Dahraie**, H.R. Najafi, A. Anvari-Moghaddam, and J.M. Guerrero, "Optimal scheduling of distributed energy resources and responsive loads in islanded microgrids considering voltage and frequency security constraints," *Journal of Renewable and Sustainable Energy*, vol. 10, no.2, 10, 025903, 2018.
- [12] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; and H. R. Najafi; Application of cooling, heating loads in an autonomous microgrid as a control strategy, *International Journal of Engineering & Technology*, vol. 4, pp. 381-389, 2015.
- [13] Homa Rashidizadeh-Kermani, **M. Vahedipour-Dahraie**, A. Anvari-Moghaddam, J. M. Guerrero, "Stochastic risk-constrained decision-making approach for a retailer in a competitive environment with flexible demand side resources," *International Transactions on Electrical Energy Systems*, Volume 29, no. 2, e2719, 2019.

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- [14] H. Rashidizadeh-Kermani, **M. Vahedipour-Dahraie**, A. Anvari-Moghaddam, J. M. Guerrero, "A Stochastic Bi-Level Decision-Making Framework for a Load-Serving Entity in Day-Ahead and Balancing Markets," *International Transactions on Electrical Energy Systems*. 2019;e12109.
- [15] H. Rashidizadeh-Kermani; **M. Vahedipour-Dahraie**; H.R. Najafi; A. Anvari-Moghaddam; and J.M. Guerrero, "A Stochastic Bi-level Scheduling Approach for Participation of EV Aggregators in Competitive Electricity Markets," *Applied Sciences*, vol. 7, pp: 1-16, 2017.
- [16] **M. Vahedipour-Dahraie**, H. Rashidizadeh-Kermani, and H. R. Najafi, "Optimal Energy and Reserve Scheduling of an Islanded Microgrid Considering Responsive Loads and Security," *Tabriz Journal of Electrical Engineering*, vol. 48, no. 4, pp. 1853- 1866, 2018. (In Persian)
- [17] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; H.R. Najafi; "A Risk-constrained Two-stage Stochastic Model for Optimal Scheduling of Smart Autonomous Microgrids considering Demand Side Management" *Computational Intelligence in Electrical Engineering*, vol. 10, no. 2, pp. 1-18, 2019, (In Persian).
- [18] Rashidizadeh-Kermani, **M. Vahedipour-Dahraie**, H.R. Najafi, "Investigation of a bi-level model for the scheduling of electric vehicles in a competitive environment considering uncertainties," *Iranian Electric Industry Journal of Quality and Productivity*, vol. 7, no. 13, pp. 68-83, 2018 (In Persian).
- [19] M. Vahedipour-Dahraie; **H. Rashidizadeh-Kermani**; A. Anvari-Moghaddam, "Risk-Constrained Stochastic Scheduling of a Grid-Connected Hybrid Microgrid with Variable Wind Power Generation," *Electronics* 2019, 8, 577; doi:10.3390/electronics8050577.
- [20] H. Rashidizadeh-Kermani; **M. Vahedipour-Dahraie**; M. Shafie-khah, J.P.S. Catalão, "Joint Energy and Reserve Scheduling of a Wind Power Producer in a Peer-To-Peer Mechanism," Under review in *Electric Power Systems Research*.
- [21] H. Rashidizadeh-Kermani; **M. Vahedipour-Dahraie**; M. Shafie-khah, J.P.S. Catalão, "Investigating the effect of Locational Marginal Pricing of a Wind Power Producer on Congestion Management," Under review in *Electric Power Systems Research*.
- [22] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; M. Shafie-khah, J.P.S. Catalão, "Optimal Scheduling of Microgrids with Multi-Period Islanding Operation Considering Demand-side Management," Under review in *Electric Power Systems Research*.
- [23] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; M. Shafie-khah, J.P.S. Catalão, "Risk-Constrained Optimal Energy and Reserve Scheduling for Virtual Power Plants Considering Time-based Rate Demand Response Programs," Under review in *Electric Power Systems Research*.
- [24] H. Rashidizadeh-Kermani; **M. Vahedipour-Dahraie**; M. Shafie-khah, P. Siano, "A Peer to Peer Energy Trading Framework for Wind Power Producers with Load Serving Entities in Retailing Layer," Under review in *IEEE Transactions on Power Systems*.
- [25] H. Rashidizadeh-Kermani; **M. Vahedipour-Dahraie**; M. Shafie-khah, P. Siano, "Improving Transmission Margins by Bilateral Contracts between Wind Power Producers and Customers," Under review in *IEEE Transactions on Industrial Informatics*.
- [26] **M. Vahedipour-Dahraie**, H. Rashidizadeh-Kermani, A. Anvari-Moghaddam, P. Siano, "Risk-averse Probabilistic Framework for Scheduling of Virtual Power Plants Considering Demand Response and Uncertainties," Under review in *International Journal of Electrical Power & Energy*.
- [27] **M. Vahedipour-Dahraie**, H. Rashidizadeh-Kermani, M. Shafie-khah, P. Siano, "Peer-to-Peer Energy Trading between Wind Power Producer and Demand Response Aggregators for Scheduling Joint Energy and Reserve," Under review in *IEEE systems journal*.
- [28] **M. Vahedipour-Dahraie**, H. Rashidizadeh-Kermani, A. Anvari-Moghaddam, "Risk-based Stochastic Scheduling of Resilient Microgrids Considering Demand Response Programs," Under review in *IEEE systems journal*.
- [29] **M. Vahedipour-Dahraie**, H. Rashidizadeh-Kermani, A. Anvari-Moghaddam, P. Siano, "Flexible Stochastic Scheduling of Microgrids with Islanding Operation Complemented by Optimal Offering Strategie," Under review in *CSEE Journal of Power and Energy Systems*.

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B) Books

- [1] **Mostafa Vahedipour Dahraie**, 2010, "A complete solution to Power Systems Analysis" (volume 1), Simaye Danesh, pp. 1-180, (in Persian).
- [2] **Mostafa Vahedipour Dahraie**, 2010, "A complete solution to Power Systems Analysis" (volume 2), Simaye Danesh, pp. 1-200, (in Persian).
- [3] **Mostafa Vahedipour Dahraie**, H. Rashidizadeh Kermani, 2014, "A complete solution to Electric Machinery," Simaye Danesh, pp. 1-217, (In Persian).
- [4] **Mostafa Vahedipour Dahraie**, Mahmoud Ebadian 2013, "Synchronous Machines", Simaye Danesh, pp. 1-175, (in Farsi).
- [5] **Full-length papers in:** Josep M. Guerrero and Amjad Anvari-Moghaddam, 2017, "Advances in Integrated Energy Systems Design, Control and Optimization", Applied Sciences, pp. 1-176, 2017.

C) Conference papers:

- [1] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; H.R. Najafi; A. Anvari-Moghaddam; and J.M. Guerrero, 2018, "Stochastic Frequency-Security Constrained Scheduling of a Microgrid Considering Price-Driven Demand Response," speedam2010.
- [2] H. Rashidi zadeh kermani, **M. Vahedipour dahraie**, H. R. Najafi, 2018, "Optimal Energy Management of Electric Vehicle Aggregator in the Electricity Market," The 6th Iranian Conference on Renewable Energies and Dispersed Production, ICREDG06_105.
- [3] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; and H. R. Najafi, 2016, "A Proposed Strategy to Manage Charge/ Discharge of EVs in a Microgrid Including Renewable Resources," 24th Iranian Conference on Electrical Engineering (ICEE), pp. 649-654.
- [4] **M. Vahedipour Dahraie**; H.R. Najafi; R. Nasirzadeh Azizkandi; and M.R. Nezamdoust, 2012, "Study on Compressed Air Energy Storage Coupled with a Wind Farm," Second Iranian Conference on Renewable Energy and Distributed Generation, IEEE, DOI: 10.1109/ICREDG.2012.6190452.
- [5] **M. Vahedipour Dahraie**, H. R. Najafi, and M. Ebadian, 2012, "Analytical Investigation of the Effect of Wind Farm Equipped with SCIG on Voltage Stability," Second Iranian Conference on Renewable Energy and Distributed Generation, IEEE, 2012.
- [6] **M. Vahedipour Dahraie**, H. R. Najafi, and M. Ebadian, 2012, "Improvement the Effect of high Penetration Wind Power in Steady-State Voltage Stability of Power System," Second Iranian Conference on Renewable Energy and Distributed Generation, IEEE.
- [7] **M. Vahedipour-Dahraie**; H. Rashidizadeh-Kermani; and H. R. Najafi, 2017, "Joint Energy and Reserve Scheduling in an Islanded Microgrid with the presence of Renewable Resources and Responsive Loads," The 6th Iranian Conference on Renewable Energies and Dispersed Production, ICREDG06_105, (In Persian)
- [8] H. Rashidizadeh Kermani; **M. Vahedipour-Dahraie**; H.R. Najafi, 2016, "Frequency control of a microgrid including renewable resources with energy management of electric vehicles," Iranian Conference on Renewable Energy & Distributed Generation (ICREDG), pp. 114 – 118.
- [9] H. Rashidizadeh-Kermani; **M. Vahedipour-Dahraie**; and H. R. Najafi, 2016, "Demand Response Strategy for Frequency Regulation in a Microgrid without Storage Requirement," 24th Iranian Conference on Electrical Engineering (ICEE), pp. 649-654.
- [10] H. Rashidizadeh Kermsni; **M. Vahedipour Dahraie**; and H. R. Najafi, 2015, "Evaluation of on autonomous Microgrid for rural electrification in Zahedan," 20th Electric Power Distribution Conference, Zahedan, Iran, pp. 28-29.
- [11] H. Rashidizadeh Kermsni; **M. Vahedipour Dahraie**; and H. R. Najafi, "Energy management of charge and discharge of electric vehicles in a parking lot with considering competitive environment,

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The 6th Iranian Conference on Renewable Energies and Dispersed Production, ICREDG06_106, (In Persian).

- [12] **H. Rashidizadeh-Kermani**, M. Vahedipour-Dahraie, H. R. Najafi, " Risk Averse Decision Making of a Wind Power Producer in Short-term Trading Floor," International Conference on Renewable Energies and Distributed Generation of Iran, 11-12 June 2019.
- [13] **H. Rashidizadeh-Kermani**, M. Vahedipour-Dahraie, M. Shafie-khah, and J. P. S. Catalão, "Optimal Scheduling of Virtual Power Plant with Demand Response in Short Term Electricity Market," To be presented in IECON 2019.
- [14] **H. Rashidizadeh-Kermani**, M. Vahedipour-Dahraie, M. Shafie-khah, M. Lotfi, and J. P. S. Catalão, "An Economic-Reliability Risk-Constrained Scheduling for Resilient-Microgrids Considering Demand Response Actions," IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society, Lisbon, Portugal.
- [15] **H. Rashidizadeh Kermnsni**; M. Vahedipour Dahraie; H. Falaghi, 2015, "A Probabilistic Method to Model Charging and Discharging Process of EVs for a Parking Lot using Queue Theory," 7th Iranian Conference on Electrical and Electronics Engineering (ICEEE 2015), Gonabad, Iran.