



Name & Surname: Elaheh Mashhour

Date of Birth: 1973

 **Address, Suburb, State, Postcode: Golestan Avenue, Ahvaz, Iran, P. O. Box 6135743337.**

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PROFESSIONAL PROFILE:

Assistant Professor of Power Electrical Engineering in Shahid Chamran University (SCU) of Ahvaz.

EDUCATION BACKGROUND:

Ph.D: Power Electrical Engineering (2010), K. N. Toosi University of Technology, Tehran, Iran

Thesis title:

Bidding strategy of virtual power plants in the competitive environment

MSc: Power Electrical Engineering (2001), Shahid Chamran University of Ahvaz, Ahvaz, Iran

Dissertation title:

Optimization of distribution systems automation using fuzzy algorithm

BS: Power Electrical Engineering (1996), Shahid Chamran University of Ahvaz, Ahvaz, Iran

TEACHING AND TRAINING EXPERIENCE:

Bachelor courses:

- Electrical Circuits II
- Analysis of electrical energy systems I
- Analysis of electrical energy systems II
- Power Plant and Generation
- Power Systems Laboratory
- Introducing Electrical Engineering

Graduate courses

- Operation of Advanced Power Systems
- Exploring and Knowing Renewable Energies
- Fundamentals of Renewable Energies II
- Energy Measurement Laboratory

INTERESTS AND RESEACH FIELDS:

Operation and Planning of Power Systems and Distribution Networks, Power Market, Renewable Resources, Smart Grids, Data Mining

RESEARCH ACTIVITIES:

PUBLICATIONS:

BOOK:

Restructuring and principles of electricity pricing in the competitive environment, K. N. Toosi University Press, 2009.

JOURNAL PAPERS:

- A. Rafati, M. Joorabian, E. mashhour, H. Shaker, High dimensional very short-term solar power forecasting based on a data-driven heuristic method, Elsevier, Energy, 219, (2021), Available online.
- N. Davari, Gh. Akbarizadeh, E. Mashhour, Intelligent Diagnosis of Incipient Fault in Power Distribution Lines based on Corona Detection in UV-Visible Videos, IEEE Trans. Power Del. (2020) Available online.
- A. Rafati, M. Joorabian, E. Mashhour, An efficient hour-ahead electrical load forecasting method based on innovative features, Elsevier, Energy, 201, (2020) 1-13.
- S.H. Alemohammad, E. Mashhour, H. Farzin, Two-stage market-based service restoration method in multi-MGs distribution networks, IET Generation, Transmission & Distribution, 13 (23) (2019) 5375-5386.

- S. Afrasiabi, A. Saffarian, E. Mashhour, Dynamic state estimation of power systems using intelligent particle filtering based on ant colony optimisation for continuous domains, IET Generation, Transmission & Distribution, 13 (13) (2019) 2627-2636.
- A. Sefidgar Dezfouli, M. Joorabian, E. Mashhour, A multiple chance-constrained model for optimal scheduling of microgrids considering normal and emergency operation, Elsevier, International Journal of Electrical Power and Energy Systems, 112 (2019) 370-380.
- M. Moradi, E. Mashhour, S. S. Mortazavi, Optimal placement of a combination of single-phase and three-phase μ PMU for observability of smart distribution networks with assymetrical structure, Elsevier, International Journal of Electrical Power and Energy Systems, 105 (2019) 592-601.
- I. Gerami Moghaddam, M. Saniei, E. Mashhour A multi-slack Optimization Model for Scheduling Energy Hubs in Smart Grid, Journal of Power Technologies, 2 (2018) 294-302.
- A. Ghasemi, S. S. Mortazavi, E. Mashhour, Hourly demand response and battery energy storage for imbalance reduction of smart distribution company embedded with electric vehicles and wind farms, Elsevier, Renewable Energy, 85 (2016) 124-136.
- I. Gerami Moghaddam, M. Saniei, E. Mashhour, A comprehensive model for self-scheduling an energy hub to supply cooling, heating and electrical demands of a building, Elsevier, Energy, 94(2016) 157-170.
- S. H. Alemohammad, E. Mashhour, M. Saniei, A market-based method for reconfiguration of distribution network, Elsevier, Electric Power Systems Research, 125 (2015) 15-22.
- E. Mashhour, S.M. Moghaddas-Tafreshi, Bidding strategy of virtual power plant for participating in energy and spinning reserve markets —Part I: Problem Formulation, IEEE Trans. Power Sys., 26 (2) (2011) 949-956.
- E. Mashhour, S.M. Moghaddas-Tafreshi, Bidding strategy of virtual power plant for participating in energy and spinning reserve markets —Part II: Numerical analysis, IEEE Trans. Power Sys., 26 (2) (2011) 957-964.
- E. Mashhour, S.M. Moghaddas-Tafreshi, Integration of distributed energy resources into low voltage grid: A market-based multiperiod optimization model, Elsevier, Electric Power System Research, 80(2010) 473-480.
- E. Mashhour, S.M. Moghaddas-Tafreshi, Mathematical modeling of electrochemical storage for incorporation in methods to optimize the operational planning of an interconnected micro grid, Journal of Zhejiang University SCIENCE C (Computers & Electronics), 11 (9) (2010) 737-750.
- S. M. Moghaddas-Tafreshi, E. Mashhour, Distributed generation modeling for power flow studies and a three-phase unbalanced power flow solution for radial distribution systems considering distributed generation, Elsevier, Electric Power System Research, 79 (2009) 680-686.

CONFERENCE PRESENTATIONS:

- E. Mashhour, S.M Moghaddase-Tafreshi, A Review on Operation of Micro Grids and Virtual Power Plants in the Power Markets, IEEE 2nd International Conference on Adaptive Science and Technology, 14-16 December 2009, Accra, GHANA, pp. 273-277.
- E. Mashhour, S. M. Moghaddas-Tafreshi, Trading Models for Aggregating Distributed Energy Resources into Virtual Power Plant, IEEE 2nd International Conference on Adaptive Science and Technology, 14-16 December 2009, Accra, GHANA, pp. 418-420.
- E. Mashhour, S. M. Moghaddas-Tafreshi, The Opportunities for Future Virtual Power Plant in the Power Market, a View Point, IEEE International Conference on Clean Electrical Power (ICCEP 09), 9-11 June 2009, Capri, Italy, pp. 448-452.
- E. Mashhour, S. M. Moghaddas-Tafreshi ,Three-Phase Backward/Forward Power Flow Solution Considering Three-Phase Distribution Transformers, IEEE International Conference on Industrial Technology (ICIT09), 10-13 February 2009 Gippsland, Victoria, Australia.

RESEARCH PROJECTS:

- Optimal placement of line switches for pilot feeders of Ahvaz distribution network to improve the security indices
- Analyzing the reasons of failures of lightning arresters in some areas of north of Khuzestan Province
- Consulting in the fields of engineering, operation, loss reduction and demand side management
- Optimal placement of distributed generators (DG) for improving the static voltage stability and loss reduction in electric distribution network of Ahvaz
- Optimization and reconfiguration of distribution systems using fuzzy logic (Pilot area: Behbahan city distribution network)

PROFESSIONAL MEMBERSHIPS:

- Member of the Iranian Association of Electrical and Electronics Engineers
- Member of Iranian Wind Energy Association

LANGUAGES:

Persian (native)

English (medium)