

Iman Sadeghkhani

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Employment

Najafabad Branch, Islamic Azad University

Najafabad, Iran

Associate Professor

Feb. 2022 to Present

Department of Electrical Engineering

AFFILIATE FACULTY, SMART MICROGRID RESEARCH CENTER

DIRECTOR, MODERN DISTRIBUTION NETWORK PROTECTION (MDNP) RESEARCH LABORATORY

Najafabad Branch, Islamic Azad University

Najafabad, Iran

Assistant Professor

Jan. 2017 to Mar. 2022

Department of Electrical Engineering

AFFILIATE FACULTY, SMART MICROGRID RESEARCH CENTER

DIRECTOR, MODERN DISTRIBUTION NETWORK PROTECTION (MDNP) RESEARCH LABORATORY

SoftBargh Software Group

Isfahan, Iran

Founder

Jan. 2020 to Present

Development of Technical and Educational Software Products
for Electrical and Renewable Energy Engineering

Najafabad Branch, Islamic Azad University

Najafabad, Iran

Instructor

Feb. 2013 to Dec. 2016

Department of Electrical Engineering

Isfahan University of Technology

Isfahan, Iran

Instructor

Sept. 2013 to Jun. 2014

Department of Electrical and Computer Engineering

Education

Isfahan University of Technology

Isfahan, Iran

Ph.D. in Electrical Engineering

Sept. 2011 to Jan. 2017

Dissertation: Management of Inverter-Based Microgrids Performance
During and After Short-Circuit and Overload Faults

Supervisor: Prof. M.E. Hamedani Golshan

Advisers: A. Mehrizi-Sani (Washington State University, USA)

and A. Ketabi (University of Kashan, Iran)

Informal Adviser: Prof. J.M. Guerrero (Aalborg University, Denmark)

GPA: 18.04/20

University of Kashan

M.Sc in Electrical Engineering

Thesis: Using Artificial Neural Network for Estimation of Switching and Resonance Overvoltages during Bulk Power System Restoration

Supervisor: A. Ketabi

GPA: 18.55/20

Kashan, Iran

Sept. 2007 to Dec. 2009

Najafabad Branch, Islamic Azad University

B.Sc in Electrical Engineering

Track: Power Engineering

Supervisor: A.A. Amini

GPA: 17.61/20

Najafabad, Iran

Sept. 2003 to July 2007

Research Interests

- Protection of AC and DC microgrids and electronically-interfaced distributed energy resources
- Fault detection in electrical power systems
- Control of AC and DC microgrids

Awards and Honors

- Exceptional reviewer award for IEEE Transactions on Power Delivery, 2014.
- Distinguished researcher of University of Kashan, 2010.
- Best paper award in the 2nd National Electrical Engineering Conference, 2010.
- Ranked 2nd among all the electrical engineering M.Sc students, 2009.
- Ranked 1st among all the electrical engineering B.Sc students, 2007.

Computer Skills

Coding: C# | Python | MATLAB M-file | \LaTeX

Software: MATLAB Simulink | SIMARIS Design | ETAP | Microsoft Word, Visio, Excel, Powerpoint | Adobe Illustrator & Photoshop

Workshops

MATLAB Basic Principles Workshop

Najafabad Branch, Islamic Azad University

Nov. 2023

Power Systems Simulation Using MATLAB/Simulink Workshop

Najafabad Branch, Islamic Azad University

Sept. 2023

Python Basics for Engineering Students Workshop

Najafabad Branch, Islamic Azad University

May 2023

Scientific Papers Preparation and Publication Workshop

Najafabad Branch, Islamic Azad University

Dec. 2020, Feb. 2022

\LaTeX Workshop

Webinar

Apr. 2020

\LaTeX Workshop

Najafabad Branch, Islamic Azad University

Dec. 2018, 19

MATLAB & Simulink Workshop
Najafabad Branch, Islamic Azad University

Dec. 2018

Professional Activities & Service

Vice Chancellor of Research and Technology

Najafabad Branch, Islamic Azad University

2024 to Present

Head, Smart Microgrid Research Center

Najafabad Branch, Islamic Azad University

2023 to 2024

Head, Young Researchers and Elite Club

Najafabad Branch, Islamic Azad University

2021 to 2024

Guest Editor, Measurement and Control, SAGE Publishing

Special Issue on Smart and Integrated Protection and Control of DC Microgrids

2020

Associate Editor, Journal of Intelligent Procedures in Electrical Technology

Najafabad Branch, Islamic Azad University

2020 to Present

Executive Director, Journal of Intelligent Procedures in Electrical Technology

Najafabad Branch, Islamic Azad University

2014 to 2020

Executive Secretary, 9th MOODAK Entrepreneurship Event

Najafabad Branch, Islamic Azad University

2019

Conference Committee

- *Scientific Committee Member, 12th Iranian Conference on Renewable Energies and Distributed Generation (ICREDG 2025), Qom University of Technology, Iran.*
- *Executive Director, 1st International and 7th National Conference on Electrical Engineering and Intelligent Systems (EEIS 2024), Najafabad Branch, Islamic Azad University, Najafabad, Iran.*
- *Scientific Committee Member, 1st International and 7th National Conference on Electrical Engineering and Intelligent Systems (EEIS 2024), Najafabad Branch, Islamic Azad University, Najafabad, Iran.*
- *Scientific Committee Member, 1th International and 8th National Conference of New Idea on Electrical Engineering (ICNIEE 2024), Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.*
- *Scientific Committee Member, 28th International Electrical Power Distribution Conference (EPDC 2024), University of Zanjan, Zanjan, Iran.*
- *Executive Director, 6th National Conference on Electrical Engineering and Intelligent Systems (NEEC 2022), Najafabad Branch, Islamic Azad University, Najafabad, Iran.*
- *Scientific Committee Member, 10th Smart Grid Conference (SGC 2020), University of Kashan, Kashan, Iran.*
- *Scientific Committee Member, 5th National Conference on Electrical Engineering and Intelligent Systems (NEEC 2019), Najafabad Branch, Islamic Azad University, Najafabad, Iran.*
- *Scientific Committee Member, 4th National Electrical Engineering Conference (NEEC 2018), Najafabad Branch, Islamic Azad University, Najafabad, Iran.*
- *Secretary of International Affairs, 5th Iranian National Conference on Electrical Engineer-*

- ing and Intelligent Systems (NEEC 2019), Najafabad Branch, Islamic Azad University, Najafabad, Iran.
- *Secretary of International Affairs*, 4th National Electrical Engineering Conference (NEEC 2018), Najafabad Branch, Islamic Azad University, Najafabad, Iran.
 - *Technical Program Committee Member*, IEEE International Conference on Power Electronics, Instrumentation, Control and Computing (PICC 2018), Government Engineering College, Thrissur, Kerala, India.

Peer Review Service [\[Click here to see Publons profile\]](#)

- *Reviewer*, IEEE Transactions on Power Systems, started 2016.
- *Reviewer*, IEEE Transactions on Power Delivery, started 2011.
- *Reviewer*, IEEE Transactions on Smart Grid, started 2015.
- *Reviewer*, IEEE Transactions on Industrial Electronics, started 2017.
- *Reviewer*, IEEE Transactions on Sustainable Energy, started 2020.
- *Reviewer*, IEEE Transactions on Industry Applications, started 2024.
- *Reviewer*, IEEE Transactions on Instrumentation and Measurement, started 2020.
- *Reviewer*, IEEE Journal of Emerging and Selected Topics in Power Electronics, started 2019.
- *Reviewer*, IEEE Systems Journal, started 2019.
- *Reviewer*, IEEE Access, started 2018.
- *Reviewer*, IEEE Power Engineering Letters, started 2016.
- *Reviewer*, IEEE Power and Energy Technology Systems Journal, started 2014.
- *Reviewer*, Scientific Reports - Nature, started 2024.
- *Reviewer*, IET Generation, Transmission & Distribution, started 2014.
- *Reviewer*, IET Renewable Power Generation, started 2018.
- *Reviewer*, IET Smart Grid, started 2018.
- *Reviewer*, IET Science, Measurement & Technology, started 2014.
- *Reviewer*, IET Electronics Letters, started 2018.
- *Reviewer*, IET Energy Systems Integration, started 2018.
- *Reviewer*, International Transactions on Electrical Energy Systems, started 2012.
- *Reviewer*, International Journal of Electrical Power & Energy Systems, started 2012.
- *Reviewer*, Electric Power Systems Research, started 2023.
- *Reviewer*, Energy Reports, started 2022.
- *Reviewer*, Electrical Engineering, started 2023.
- *Reviewer*, Electric Power Components and Systems, started 2012.
- *Reviewer*, Measurement, started 2021.
- *Reviewer*, Journal of Renewable and Sustainable Energy, started 2021.
- *Reviewer*, Journal of Electrical Engineering & Technology, started 2014.
- *Reviewer*, Solar Energy Advances, started 2024.
- *Reviewer*, IETE Journal of Research, started 2024.
- *Reviewer*, International Journal of Emerging Electric Power Systems, started 2013.
- *Reviewer*, Journal of Control, Automation and Electrical Systems, started 2024.
- *Reviewer*, Tabriz Journal of Electrical Engineering, started 2023.
- *Reviewer*, Journal of Solar Energy Research, started 2020.
- *Reviewer*, Energy Equipment and Systems, started 2019.
- *Reviewer*, Energy Engineering & Management, started 2015.
- *Reviewer*, Journal of Intelligent Procedures in Electrical Technology, started 2017.

- *Reviewer*, Computational Intelligence in Electrical Engineering, started 2022.
- *Reviewer*, Technovations in Electrical Engineering & Green Energy System, started 2022.
- *Reviewer*, IEEE PES Conference on Innovative Smart Grid Technologies - Middle East (ISGT 2023 Middle East).
- *Reviewer*, Annual Conference of the IEEE Industrial Electronics Society (IECON 2018).
- *Reviewer*, IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC 2017).
- *Reviewer*, IEEE International Conference on Power Electronics, Drives, and Energy Systems (PEDES 2016).
- *Reviewer*, Iraniaian National Conference on Electrical Engineering and Intelligent Systems (NEEC 2019).
- *Reviewer*, National Electrical Engineering Conference (NEEC 2018).

Professional Society Membership

- Member, Institute of Electrical and Electronics Engineers (IEEE), 2017.
- Member, IEEE Smart Grid Community, 2020.
- Member, IEEE Young Professionals, 2015-2017.
- Graduate Student Member, IEEE, 2015-2016.
- Student Member, IEEE Power & Energy Society (PES), 2015.
- Member, International Solar Energy Society (ISES), 2018.
- Member, Iran's National Elites Foundation, 2012-Present.
- Member, Isfahan Construction Engineering Disciplinary Organization, 2014-Present.

Industrial Projects

- [P3] Preparing and documenting the power and control map of distribution system and electrical installations of Hamgam Khodro Asia Company, *Hamgam Khodro Asia Company*, 2024~in progress.
- [P2] Optimal allocation of automation switches in the distribution network with the aim of improving manoeuvrability and reliability, *Qom Province Electricity Distribution Company*, 2022~in progress.
- [P1] VOLTA: a low-voltage electrical installation design software, *SoftBargh Startup*, 2020.

Publications

Scientific Profiles.....

Orcid ID: 0000-0002-8410-2068

ResearcherID: B-8543-2014

Scopus Author ID: 35436121000

Citations.....

Number of citations at Google Scholar: 1309 [[Click here to see Google Scholar profile](#)]

***h*-index:** 20 (as of November 2024 by Google Scholar)

***i10*-index:** 31 (as of November 2024 by Google Scholar)

Number of citations at Scopus: 921 [[Click here to see Scopus profile](#)]

***h*-index:** 16 (as of November 2024 by Scopus)

Books.....

- [B3] I. Sadeghkhani, M. Parhamfar, and E. Partoy Shal, *Grounding System and Lightning Protection of Photovoltaic Plants*, Arkan Danesh Publications, Isfahan, Iran, Jan. 2020. (in Persian)
- [B2] A. Ketabi and I. Sadeghkhani, *Electric Power Systems Simulation Using MATLAB*, 5th Edition, Morsal Publications & Allameh Feiz Kashani Institute of Higher Education Publications, Kashan, Iran, 2017. (in Persian)
- [B1] I. Sadeghkhani and A. Ketabi, *Switching Overvoltages during Restoration: Evaluation and Control Using ANN*, Lambert Academic Publishing, Köln, Germany, Aug. 2012.

Selected Refereed Journal Articles (Published / Accepted).....

- [j61] A. Mallahi and I. Sadeghkhani, "A waveform similarity Based current-only differential protection technique for inverter interfaced microgrids," *Electr. Power Syst. Res.*, accepted for publication, Nov. 2024.
- [J60] M. Tavoosi, B. Fani, M. Delshad, and I. Sadeghkhani, "A charger current limiting scheme to improve protection coordination of electric vehicle integrated distribution systems," *Int. T. Electr. Energy*, vol. 2024, Nov. 2024.
- [J59] M. Tavoosi, B. Fani, M. Delshad, and I. Sadeghkhani, "A protection scheme based on modified curve of overcurrent relay for distribution systems with high penetration level of electric vehicles," *Iranian Electric Industry Journal of Quality and Productivity*, vol. 13, no. 2, Oct. 2024. (in Persian)
- [J58] I. Sadeghkhani, "A single-end reactor voltage based protection scheme for meshed VSC-interfaced HVDC grids," *Electr. Power Syst. Res.*, vol. 229, Apr. 2024.
- [J57] M. Parhamfar, I. Sadeghkhani, and A.M. Adeli, "Towards the net zero carbon future: A review of blockchain-enabled peer-to-peer carbon trading," *Energy Sci. Eng.*, vol. 12, no. 3, pp. 1242-1264, Mar. 2024.
- [J56] H. Bisheh, B. Fani, G. Shahgholian, and I. Sadeghkhani, "Fuse saving coordination scheme for active distribution systems: State-of-the-art and a novel quasi-voltage current based scheme," *IET Gener. Transm. Distrib.*, vol. 18, no. 4, pp. 729-755, Feb. 2024.
- [J55] S. Naderi, A. Ketabi, and I. Sadeghkhani, "Automated fault location scheme for low voltage smart distribution systems," *IET Electron. Lett.*, vol. 59, no. 24, Dec. 2023.
- [J54] A. Babaahmadi, I. Sadeghkhani, and A. Mehrizi-Sani, "A current wave-shape based feeder protection for DC electric railway traction systems," *Electr. Power Syst. Res.*, vol. 225, Dec. 2023.
- [J53] M. Parhamfar, I. Sadeghkhani, and A.M. Adeli, "Towards the application of renewable energy technologies in green ports: Technical and economic perspectives," *IET Renew. Power Gen.*, Vol. 17, no. 12, pp. 3120-3132, Sept. 2023.
- [J52] M. Mohammadzamani, I. Sadeghkhani, and M. Moazzami, "Design of a reliable and coordinated protection strategy for zonal shipboard microgrids," *IET Electr. Syst. Transp.*, vol. 13, no. 2, Jun. 2023.
- [J51] M. Mohammadzamani, I. Sadeghkhani, and M. Moazzami, "A fuse-isolator-switch based protection scheme for shipboard electrical distribution systems with zonal configuration," *Technovations of Electrical Engineering in Green Energy System*, vol. 2, no. 2, pp. 70-88, Sept. 2023. (in Persian)
- [J50] H. Bisheh, B. Fani, G. Shahgholian, I. Sadeghkhani, and J.M. Guerrero, "An adaptive fuse-saving protection scheme for active distribution networks," *Int. J. Electr. Power Energy Syst.*, vol. 144, Jan. 2023.
- [J49] S.R. Kafimousavi, B. Fani, and I. Sadeghkhani, "Optimal determination of photovoltaic

- penetration level considering protection miscoordination," *IEEE Syst. J.*, vol. 16, no. 2, pp. 2121-2124, Jun. 2022.
- [J48] A.H. Fathi Jowzdani, I. Sadeghkhani, and A. Mehrizi-Sani, "Islanding detection for DC microgrids based on episode of care severity index," *IEEE Trans. Smart Grid*, vol. 13, no. 2, pp. 954-961, Mar. 2022.
- [J47] M. Mohammadzamani, M. Moazzami, and I. Sadeghkhani, "Voltage THD minimization in multilevel cascade inverters using repetitive quadratic programming," *Journal of Intelligent Procedures in Electrical Technology*, vol. 12, no. 48, pp. 31-42, Mar. 2022.
- [J46] M. Hojjaty, B. Fani, and I. Sadeghkhani, "Intelligent protection coordination restoration strategy for active distribution networks," *IET Gener. Transm. Distrib.*, vol. 16, no. 3, pp. 397-413, Feb. 2022.
- [J45] E. Abbaspour, B. Fani, I. Sadeghkhani, and H.H. Alhelou, "Multi-agent system-based hierarchical protection scheme for distribution networks with high penetration of electronically-coupled DGs," *IEEE Access*, vol. 9, pp. 102998-103018, Jul. 2021.
- [J44] S. Ahmadi, I. Sadeghkhani, G. Shahgholian, B. Fani, and J.M. Guerrero, "Protection of LVDC microgrids in islanded and grid-connected modes using bifurcation theory," *IEEE J. Em. Sel. Top. P.*, vol. 9, no. 3, pp. 2597-2604, Jun. 2021.
- [J43] A. Zabihi, I. Sadeghkhani, and B. Fani, "A partial shading detection algorithm for photovoltaic generation systems," *J. Energy Res.*, vol. 6, no. 1, pp. 678-687, Mar. 2021.
- [J42] R. Rouhani, I. Sadeghkhani, and J.M. Guerrero, "Directional element for faulty feeder identification of high-resistance fault in high-surety power supply systems," *IET Gener. Transm. Distrib.*, vol. 15, no. 1, pp. 45-55, Jan. 2021.
- [J41] H. Noroozi and I. Sadeghkhani, "Smooth reference modulation based protection of fault current limiting DC/DC converters," *Meas. Control*, vol. 53, no. 9-10, pp. 1662-1668, Nov.-Dec. 2020.
- [J40] K. Allahdadi, I. Sadeghkhani, and B. Fani, "Protection of converter-interfaced microgrids using modified short-time correlation transform," *IEEE Syst. J.*, vol. 14, no. 4, pp. 5172-5175, Dec. 2020.
- [J39] S. Nezamzadeh-Ejeh and I. Sadeghkhani, "HIF detection in distribution networks based on Kullback-Leibler divergence," *IET Gener. Transm. Distrib.*, vol. 14, no. 1, pp. 29-36, Jan. 2020.
- [J38] F. Hajimohammadi, B. Fani, and I. Sadeghkhani, "Fuse saving scheme in highly photovoltaic-integrated distribution networks," *Int. T. Electr. Energy*, vol. 30, no. 1, Jan. 2020.
- [J37] M. Sadeghian, B. Fani, I. Sadeghkhani, and G. Shahgholian, "A local power control scheme for electronically interfaced distributed generators in islanded microgrids," *Iranian Electric Industry Journal of Quality and Productivity*, vol. 8, no. 3, pp. 47-58, Feb. 2020. (in Persian)
- [J36] M. Salehi, S.A. Taher, I. Sadeghkhani, and M. Shahidehpour, "A poverty severity index-based protection strategy for ring-bus low-voltage DC microgrids," *IEEE Trans. Smart Grid*, vol. 10, no. 6, pp. 6860-6869, Nov. 2019.
- [J35] H. Karimi, G. Shahgholian, B. Fani, I. Sadeghkhani, and M. Moazzami, "A protection strategy for inverter-interfaced islanded microgrids with looped configuration," *Electr. Eng.*, vol. 101, no. 3, pp. 1059-1073, Sept. 2019.
- [J34] A. Maleki, I. Sadeghkhani, and B. Fani, "Statistical sensorless short-circuit fault detection algorithm for photovoltaic arrays," *J. Renew. Sustain. Ener.*, vol. 11, no. 5, Sept. 2019.
- [J33] S. Nezamzadeh-Ejeh and I. Sadeghkhani, "Cross entropy-based high-impedance fault detection algorithm for distribution networks," *Iranian Electric Industry Journal of Quality*

- and *Productivity*, vol. 8, no. 15, pp. 71-80, Sep. 2019. (in Persian)
- [J32] M. Shahraki, B. Fani, and I. Sadeghkhani, "Virtual impedance-based adaptive droop control to improve reactive power sharing for inverter-based microgrids," *Energy Engineering & Management*, vol. 9, no. 1, pp. 26-35, Apr. 2019. (in Persian)
 - [J31] A. Khoshnami and I. Sadeghkhani, "Sample entropy-based fault detection for photovoltaic arrays," *IET Renew. Power Gen.*, vol. 12, no. 16, pp. 1966-1976, Dec. 2018.
 - [J30] F. Zandi, B. Fani, I. Sadeghkhani, and A. Orakzadeh, "Adaptive complex virtual impedance control scheme for reactive power management of inverter interfaced autonomous microgrids," *IET Gener. Transm. Distrib.*, vol. 12, no. 22, pp. 6021-6032, Dec. 2018.
 - [J29] A. Khoshnami and I. Sadeghkhani, "Two-stage power-based fault detection scheme for photovoltaic systems," *Sol. Energy*, vol. 176, pp. 10-21, Dec. 2018.
 - [J28] A. Khoshnami and I. Sadeghkhani, "Fault detection for photovoltaic systems using Teager-Kaiser energy operator," *IET Electron. Lett.*, vol. 54, no. 23, pp. 1342-1344, Nov. 2018.
 - [J27] I. Sadeghkhani, M.E. Hamedani Golshan, A. Mehrizi-Sani, J.M. Guerrero, and A. Ketabi, "Transient monitoring function-based fault detection for inverter-interfaced microgrids," *IEEE Trans. Smart Grid*, vol. 9, no. 3, pp. 2097-2107, May 2018.
 - [J26] I. Sadeghkhani, M.E. Hamedani Golshan, A. Mehrizi-Sani, and J.M. Guerrero, "Low voltage ride-through of a droop-based three-phase four-wire grid-connected microgrid," *IET Gener. Transm. Distrib.*, vol. 12, no. 8, pp. 1906-1914, Apr. 2018.
 - [J25] B. Fani, H. Bisheh, and I. Sadeghkhani, "Protection coordination scheme for distribution networks with high penetration of photovoltaic generators," *IET Gener. Transm. Distrib.*, vol. 12, no. 8, pp. 1802-1814, Apr. 2018.
 - [J24] B. Ahmadzadeh-Shooshtari, M.E. Hamedani Golshan, and I. Sadeghkhani, "Comprehensive investigation of the voltage relay for anti-islanding protection of synchronous distributed generation," *Int. T. Electr. Energy*, vol. 27, no. 11, Nov. 2017.
 - [J23] I. Sadeghkhani, M.E. Hamedani Golshan, J.M. Guerrero, and A. Mehrizi-Sani, "A current limiting strategy to improve fault ride-through of inverter interfaced autonomous microgrids," *IEEE Trans. Smart Grid*, vol. 8, no. 5, pp. 2138-2148, Sept. 2017.
 - [J22] A. Sadoughi and I. Sadeghkhani, "Using one-cycle control based series voltage-sourced converter to suppress starting current of induction motors," *Journal of Engineering Science and Technology*, vol. 12, no. 4, pp. 937-949, Apr. 2017.
 - [J21] B. Ahmadzadeh-Shooshtari, M.E. Hamedani Golshan, and I. Sadeghkhani, "A combined method to efficiently adjust frequency-based anti-islanding relays of synchronous distributed generation," *Int. T. Electr. Energy*, vol. 25, no. 11, pp. 3042-3059, Nov. 2015.
 - [J20] A. Yazdekhaesti, A. Ketabi, and I. Sadeghkhani, "One-cycle control application to wind turbine power control," *Int. T. Electr. Energy*, vol. 25, no. 10, pp. 2427-2442, Oct. 2015.
 - [J19] I. Sadeghkhani, A. Ketabi, and R. Feuillet, "An intelligent switching overvoltages estimator for power system restoration using artificial neural network," *Int. J. Innov. Comput. I.*, vol. 10, no. 5, pp. 1791-1808, Oct. 2014.
 - [J18] A. Sadoughi and I. Sadeghkhani, "An intelligent estimator for transient overvoltages study during induction motors starting," *J. Math. Computer Sci.*, vol. 9, no. 4, pp. 249-262, Oct. 2014.
 - [J17] I. Sadeghkhani, A. Ketabi, and R. Feuillet, "Extended delta-bar-delta algorithm application to evaluate transmission lines overvoltages," *Engineering Journal*, vol. 17, no. 4, pp. 79-92, Oct. 2013.
 - [J16] A. Ketabi, I. Sadeghkhani, and R. Feuillet, "Network switching and voltage evaluation

- during power system restoration," *Electr. Eng.*, vol. 95, no. 3, pp. 241-253, Sept. 2013.
- [J15] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Investigation of transmission line models for switching overvoltages studies," *Int. J. Emerg. Elec. Power Syst.*, vol. 14, no. 3, pp. 231-238, July 2013.
- [J14] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "The study of switching overvoltages under power system restoration scenario using extended delta-bar-delta algorithm," *Int. J. Emerg. Elec. Power Syst.*, vol. 14, no. 3, pp. 219-230, July 2013.
- [J13] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Delta-bar-delta and directed random search algorithms application to reduce transformer switching overvoltages," *International Journal on Electrical Engineering and Informatics*, vol. 5, no. 1, pp. 55-66, Mar. 2013.
- [J12] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Artificial intelligence based techniques to evaluate switching overvoltages during power system restoration," *Advances in Artificial Intelligence*, vol. 2013, pp. 1-8, Jan. 2013.
- [J11] I. Sadeghkhan, A. Ketabi, and S.A. Taher, "Mitigation of shunt reactor overvoltages using delta-bar-delta and directed random search algorithms," *Prz. Elektrotechniczn.*, vol. 88, no. 12a, pp. 269-274, Dec. 2012.
- [J10] A. Ketabi, I. Sadeghkhan, and R. Feuillet, "Switching overvoltages analysis during shunt reactor energization using ANN," *Eng. Intell. Syst. Elec.*, vol. 20, no. 4, pp. 223-233, Dec. 2012.
- [J9] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Control of shunt reactor overvoltages by controlled switching during power system restoration," *J. Circuit Syst. Comp.*, vol. 21, no. 7, pp. 1-15, Nov. 2012.
- [J8] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Radial basis function neural network application to measurement and control of shunt reactor overvoltages based on analytical rules," *Math. Probl. Eng.*, vol. 2012, pp. 1-14, 2012.
- [J7] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Radial basis function neural network application to power system restoration studies," *Comput. Intell. Neurosci.*, vol. 2012, pp. 1-10, 2012.
- [J6] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Study of transformer switching overvoltages during power system restoration using delta-bar-delta and directed random search algorithms," *Int. J. Emerg. Elec. Power Syst.*, vol. 13, no. 3, pp. 1-22, Aug. 2012.
- [J5] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Delta-bar-delta and directed random search algorithms to study capacitor banks switching overvoltages," *Serb. J. Electr. Eng.*, vol. 9, no. 2, pp. 217-229, June 2012.
- [J4] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "An approach to evaluate switching overvoltages during power system restoration," *Serb. J. Electr. Eng.*, vol. 9, no. 2, pp. 171-187, June 2012.
- [J3] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Artificial neural network based method to mitigate temporary overvoltages," *J. Eng. Sci. Technol. Rev.*, vol. 4, no. 2, pp. 193-200, Dec. 2011.
- [J2] A. Ketabi, I. Sadeghkhan, and R. Feuillet, "Using artificial neural network to analyze harmonic overvoltages during power system restoration," *Eur. T. Electr. Power*, vol. 21, no. 7, pp. 1941-1953, Oct. 2011.
- [J1] S.A. Taher and I. Sadeghkhan, "Estimation of magnitude and time duration of temporary overvoltages using ann in transmission lines during power system restoration," *Simul. Model. Pract. Th.*, vol. 18, no. 6, pp. 787-805, June 2010.

Conference Papers.....

- [C9] B. Ahmadzadeh-Shoostari, M.E. Hamedani Golshan, and I. Sadeghkhan, "Adjustment of synchronous distributed generation anti-islanding protection for Isfahan network," in *Proc. 29th Int. Power System Conf.*, Tehran, Iran, Oct. 2014. (in Persian)
- [C8] I. Sadeghkhan, A. Mortazavian, and A. Ketabi, "A method for harmonic overvoltages reduction during transformers energization by controlled switching," in *Proc. 26th Int. Power System Conf.*, Tehran, Iran, Oct. 2011. (in Persian)
- [C7] I. Sadeghkhan and A. Ketabi, "Analysis of harmonic overvoltages in three-phase transformers during power system restoration," in *Proc. 25th Int. Power System Conf.*, Tehran, Iran, Nov. 2010. (in Persian)
- [C6] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "Estimation of temporary overvoltages during power system restoration using artificial neural network," in *Proc. IEEE 15th Int. Conf. on Intelligent System Applications to Power Systems*, Curitiba, Brazil, Nov. 2009.
- [C5] I. Sadeghkhan, A. Ketabi, and R. Feuillet, "New approach to harmonic overvoltages reduction during transformer energization via controlled switching," in *Proc. IEEE 15th Int. Conf. on Intelligent System Applications to Power Systems*, Curitiba, Brazil, Nov. 2009.
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- [T3] I. Sadeghkhan, "Management of inverter-based microgrids performance during and after short-circuit and overload faults," Ph.D. dissertation, Dept. Elect. Comp. Eng., Isfahan Univ. Tech., Isfahan, Iran, 2017.
- [T2] I. Sadeghkhan, "Using artificial neural network for estimation of switching and resonance overvoltages during bulk power system restoration," Master's thesis, Dept. Elect. Eng., Univ. Kashan, Kashan, Iran, 2009.
- [T1] I. Sadeghkhan, "Electric motor drive systems," B.Sc. thesis, Dept. Elect. Eng., Najafabad Branch, Islamic Azad Univ., Najafabad, Iran, 2007.

Students

Doctoral Students–Current.....

- [D6] Aboulghasem Heydari, Najafabad Branch, Islamic Azad Univ., started Oct. 2022.
- [D5] Majid Tavoosi, Isfahan Branch, Islamic Azad Univ., started Feb. 2022.
- [D4] Sima Ahmadi, Najafabad Branch, Islamic Azad Univ., started Jan. 2018.

Doctoral Students–Graduated.....

- [D3] Mehdi Mohammadzamani, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *“Protection system design for islanded shipboard microgrids”*;
- Co-Advisors: Dr. Majid Moazzami;
- Thesis start date: Jun. 2019;
- Thesis end date: Feb. 2024;
- Publication: [J51], [J52].
- [D2] Hadi Bisheh, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *“Adaptive fuse saving based protection coordination restoration in active distribution networks”*;
- Main Advisors: Dr. Bahador Fani and Dr. Ghazanfar Shahgholian;
- Thesis start date: Nov. 2020;
- Thesis end date: Oct. 2022;
- Publication: [J50], [J56].
- [D1] Hamed Karimi, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *“Protection of low voltage microgrids”*;
- Main Advisors: Dr. Bahador Fani and Dr. Ghazanfar Shahgholian;
- Advisor: Dr. Majid Moazzami;
- Thesis start date: Aug. 2017;
- Thesis end date: Sept. 2020.
- Publication: [J35].

Master’s Students–Current.....

- [M17] Sina Hosseini, Najafabad Branch, Islamic Azad Univ., started Nov. 2023.

Master’s Students–Graduated.....

- [M16] Mohammad Hossein Vaez, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *“A comprehensive study for renewable energy initiatives for sustainable universities”*;
- Thesis start date: Nov. 2023;
- Thesis end date: Sept. 2024;
- [M15] Farid Salehi, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *“Techno-economic and environmental assessment of renewable energy sources for green steel production”*;
- Thesis start date: May 2023;
- Thesis end date: Sept. 2024;
- [M14] Ali Mallahi, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *“A wave-shape based protection scheme for inverter based microgrids”*;
- Thesis start date: Feb. 2022;
- Thesis end date: Feb. 2024;
- Publication: [J61].
- [M13] Mehran Dehghan, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *“A fast and selective protection strategy for multi-terminal voltage-source converter based high-voltage DC systems”*;
- Thesis start date: May 2022;
- Thesis end date: Sept. 2023;
- [M12] Salar Naderi, Univ. Kashan

- Thesis Title: *"Fault detection in low voltage distribution network with residential photovoltaic systems"*;
 - Main Advisor: Prof. Abbas Ketabi;
 - Thesis start date: Jun. 2021;
 - Thesis end date: Sept. 2023;
 - Publication: [J55].
- [M11] Azhang Babaahmadi, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *"A digital protection scheme for DC electric railway traction systems"*;
 - Thesis start date: Sept. 2020;
 - Thesis end date: Feb. 2022;
 - Publication: [J54].
- [M10] Mohammad Parhamfar, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *"Lightning and overvoltage protection and native risk assessment software development for photovoltaic plants"*;
 - Main Advisor: Roohollah Kimiaefar;
 - Thesis start date: Aug. 2020;
 - Thesis end date: May 2021.
- [M9] Roja Rouhani, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *"Protection of super uninterruptable power supply system against short-circuit fault with high impedance"*;
 - Thesis start date: Oct. 2018;
 - Thesis end date: Feb. 2021.
 - Publication: [J42].
- [M8] Amir Hossein Fathi, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *"Islanding detection of DC Networks using superimposed voltage component"*;
 - Thesis start date: Mar. 2019;
 - Thesis end date: Feb. 2021.
 - Publication: [J48].
- [M7] Alireza Zabihi, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *"A partial shading detection algorithm to protect photovoltaic arrays against hotspot"*;
 - Advisor: Dr. Bahador Fani;
 - Thesis start date: Nov. 2018;
 - Thesis end date: Sept. 2020.
 - Publication: [J44].
- [M6] Karim Allahdadi, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *"A fault detection algorithm for low voltage inverter-based islanded microgrids"*;
 - Advisor: Dr. Bahador Fani;
 - Thesis start date: Jul. 2018;
 - Thesis end date: Sept. 2019.
 - Publication: [J40].
- [M5] Amir Maleki, Najafabad Branch, Islamic Azad Univ.
- Thesis Title: *"Fault detection for photovoltaic arrays using a statistical approach"*;
 - Advisor: Dr. Bahador Fani;
 - Thesis start date: Oct. 2018;
 - Thesis end date: Sept. 2019;

- Publication: [J34].
- [M4] Shiva Nezamzadeh, Najafabad Branch, Islamic Azad Univ.
 - Thesis Title: *"Entropy-based high impedance fault detection for distribution networks"*;
 - Thesis start date: Jul. 2018;
 - Thesis end date: Sept. 2019;
 - Publications: [J33],[J39].
- [M3] Hooman Norouzi, Najafabad Branch, Islamic Azad Univ.
 - Thesis Title: *"A current limiting scheme for islanded DC microgrids"*;
 - Thesis start date: May 2018;
 - Thesis end date: Sept. 2019.
 - Publications: [J41].
- [M2] Mehdi Salehi, Univ. Kashan
 - Thesis Title: *"A protection strategy for low voltage DC islanded microgrids with ring configuration"*;
 - Main Advisor: Prof. Seyed Abbas Taher;
 - Thesis start date: Jun. 2017;
 - Thesis end date: Sept. 2018;
 - Publication: [J36].
- [M1] Aria Khoshnami, Najafabad Branch, Islamic Azad Univ.
 - Thesis Title: *"Short circuit faults detection for photovoltaic systems"*;
 - Thesis start date: Oct. 2017;
 - Thesis end date: Sept. 2018;
 - Publications: [J28],[J29],[J31].
 - Distinguished researcher of Najafabad Branch, Islamic Azad Univ., 2019.