Iman Sadeghkhani

No. 313, Dept. Elect. Eng.,
Najafabad Branch, Islamic Azad Univ., Najafabad 85141-43131 – Iran
☎ +98 (31) 4229 3086   •   ✉ sadeghkhani@pel.iaun.ac.ir
✆ research.iaun.ac.ir/pd/sadeghkhani

Employment

Najafabad Branch, Islamic Azad University   **Najafabad, Iran**
Assistant Professor   *Jan. 2017 to Present*
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   **Kashan, Iran**
M.Sc in Electrical Engineering   *Sept. 2007 to Dec. 2009*
Thesis: Using Artificial Neural Network for Estimation of Switching
and Resonance Overvoltages during Bulk Power System Restoration
Supervisor: A. Ketabi
GPA: 18.55/20

Najafabad Branch, Islamic Azad University   **Najafabad, Iran**
B.Sc in Electrical Engineering   *Sept. 2003 to July 2007*
Track: Power Engineering
Supervisor: A.A. Amini
GPA: 17.61/20

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 & Web
- C#
- Python
- JavaScript
- HTML
- CSS
- Bootstrap
- WordPress
- MATLAB M-file
- LaTeX

Software
- MATLAB Simulink
- Microsoft Word
- Microsoft Visio
- Microsoft Excel
- Adobe Illustrator
- Adobe Photoshop

Teaching Experience

Instructor   **Najafabad Branch, Islamic Azad University**
Smart Electrical Energy Grids   *Fall 2018, Spring 2018, 19*
- 2019 evaluation: 4.4/5.
- 2018 evaluation: 4.86/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Design of Photovoltaic Systems   *Fall 2019*
- 2019 evaluation: 4.83/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Analysis of Electrical Energy Systems I   *Fall 2015, 16, 18, 19, Spring 2016, 17, 18, 19*
- 2019 evaluation: 4.11/5.
- 2018 evaluation: 4.33/5.
- 2017 evaluation: 4.39/5.
- 2016 evaluation: 4.49/5.
- 2015 evaluation: 4.4/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Electrical Machines II   *Fall 2012, 13, 14, 15, 16, 17, 18, Spring 2013, 14, 15, 16, 17, 18, 19*
- 2019 evaluation: 4.64/5.
- 2018 evaluation: 4.50/5.
- 2017 evaluation: 4.36/5.
- 2016 evaluation: 4.64/5.
- 2015 evaluation: 4.46/5.
- 2014 evaluation: 4.29/5.
- 2013 evaluation: 4.49/5.
- 2012 evaluation: 4.33/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Power Systems Laboratory   *Fall 2012, 13, 14, 15, 17, Spring 2012, 13, 14, 15, 17*
- 2017 evaluation: 4.48/5.
- 2015 evaluation: 4.76/5.
- 2014 evaluation: 4.34/5.
- 2013 evaluation: 4.58/5.
- 2012 evaluation: 4.5/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Power Systems Analysis I   *Fall 2012, 13, 14, 16, Spring 2013, 14, 15*
- 2016 evaluation: 4.48/5.
- 2015 evaluation: 4.36/5.
- 2014 evaluation: 4.47/5.
- 2013 evaluation: 4.29/5.
- 2012 evaluation: 4.1/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Research Method   *Fall 2017*
- 2017 evaluation: 4.16/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Seminar   *Spring 2018*
- 2019 evaluation: 4.23/5.
- 2017 evaluation: 4.59/5.

Instructor   **Najafabad Branch, Islamic Azad University**

Electricity Workshop   *Fall 2017, 18, 19, Spring 2018, 19*

- 2019 evaluation: 4.4/5.
- 2018 evaluation: 4.43/5.
- 2017 evaluation: 4.53/5.

Instructor **Najafabad Branch, Islamic Azad University**
Electrical Engineering Basics I *Fall 2016, 17, 18, 19, Spring 2017, 18, 19*
- 2019 evaluation: 4.56/5.
- 2018 evaluation: 4.49/5.
- 2017 evaluation: 4.71/5.
- 2016 evaluation: 4.80/5.

Instructor **Najafabad Branch, Islamic Azad University**
Electrical Engineering Basics Laboratory *Spring 2018*
- 2018 evaluation: 4.80/5.

Instructor **Isfahan University of Technology**
Electrical Engineering Basics *Fall 2013, Spring 2014*

 Student Statistics
- Overall: 2890.
- 2019: 194 students (Spring), 158 students (Fall).
- 2018: 223 students (Spring), 212 students (Fall).
- 2017: 234 students (Spring), 220 students (Fall).
- 2016: 140 students (Spring), 227 students (Fall).
- 2015: 99 students (Spring), 183 students (Fall).
- 2014: 137 students (Spring), 108 students (Fall).
- 2013: 176 students (Spring), 175 students (Fall).
- 2012: 77 students (Spring), 327 students (Fall).

Workshops

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

Head, Young Researchers and Elite Club
Najafabad Branch, Islamic Azad University *2021 to Present*

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 2019*

Executive Secretary, 9th MOODAK Entrepreneurship Event
Najafabad Branch, Islamic Azad University   *2019*

Conference Committee

- *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 Iranaian National Conference on Electrical Engineering 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 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*, 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*, Energy Reports, started 2022.

- *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*, International Journal of Emerging Electric Power Systems, started 2013.
- *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*, 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*, Iranaian 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.

Publications

Scientific Profiles

Orcid ID: 0000-0002-8410-2068
ResearcherID: B-8543-2014
Scopus Author ID: 35436121000

Citations

Number of citations at Google Scholar: 792 [Click here to see Google Scholar profile]
***h*-index:** 15 (as of October 2022 by Google Scholar)
***i10-index:** 20 (as of October 2022 by Google Scholar)

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)...............................

[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-Ejieh 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-Ejieh 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. Yazdekhasti, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, A. Ketabi, and R. Feuillet, "Delta-bar-delta and directed random search algorithms to study capacitor banks switching overvoltages," *Serb. J. Electr. l Eng.*, vol. 9, no. 2, pp. 217-229, June 2012.

[J4] I. Sadeghkhani, A. Ketabi, and R. Feuillet, "An approach to evaluate switching overvoltages during power system restoration," *Serb. J. Electr. l Eng.*, vol. 9, no. 2, pp. 171-187, June 2012.

[J3] I. Sadeghkhani, 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. Sadeghkhani, 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. Sadeghkhani, "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-Shooshtari, M.E. Hamedani Golshan, and I. Sadeghkhani, "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. Sadeghkhani, 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. Sadeghkhani 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. Sadeghkhani, 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. Sadeghkhani, 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.

[C4] I. Sadeghkhani, A. Ketabi, and R. Feuillet, "New approach to analyze temporary overvoltaegs during transformer energization," in *Proc. IEEE Electric Power and Energy Conversion System*, Sharjah, UAE, Nov. 2009.

[C3] I. Sadeghkhani and A. Ketabi, "Estimation of harmonic overvoltages during transformer energization using artificial neural network," in *Proc. 24th Int. Power System Conf.*, Tehran, Iran, Nov. 2009. (in Persian)

[C2] I. Sadeghkhani and S.A. Taher, "Analysis of transient overvoltages in transmission lines during power system restoration," in *Proc. 2nd National Electrical Engineering Conf.*, Iran, Feb. 2010. (in Persian)

[C1] A. Ketabi and I. Sadeghkhani, "Efficiency optimization for three-phase induction motors based on stator winding change," in *Proc. 2nd National Electrical Engineering Conf.*, Iran, Feb. 2010. (in Persian)

Theses...

[T3] I. Sadeghkhani, "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. Sadeghkhani, "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. Sadeghkhani, "Electric motor drive systems," B.Sc. thesis, Dept. Elect. Eng., Najafabad Branch, Islamic Azad Univ., Najafabad, Iran, 2007.

Students

[D6] Majid Tavoosi, Isfahan Branch, Islamic Azad Univ., started Feb. 2022.

[D5] Amin Baharvand, Najafabad Branch, Islamic Azad Univ., started Feb. 2021.

[D4] Hadi Bisheh, Najafabad Branch, Islamic Azad Univ., started Nov. 2020.

[D3] Mehdi Mohammad-Zamani, Najafabad Branch, Islamic Azad Univ., started Jun. 2019.

[D2] Sima Ahmadi, Najafabad Branch, Islamic Azad Univ., started Jan. 2018.

Doctoral Students–Graduated

[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

[M15] Ali Fazli, Najafabad Branch, Islamic Azad Univ., started Jul. 2022.

[M14] Mehran Dehghan, Najafabad Branch, Islamic Azad Univ., started May 2022.

[M13] Ali Mallahi, Najafabad Branch, Islamic Azad Univ., started Feb. 2022.

[M12] Salar Naderi, Univ. Kashan, started Jun. 2021.

Master's Students–Graduated

[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.

[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.

Undergraduate Students

[U36] Mehrshad Eydivandi, Najafabad Branch, Islamic Azad Univ., Final: Oct. 2022.
[U36] Hossein Darvish, Najafabad Branch, Islamic Azad Univ., Final: Feb. 2022.
[U35] Mohammad Azami, Najafabad Branch, Islamic Azad Univ., Final: Feb. 2021.
[U34] Farzad Sadeghi, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2019.
[U33] Seyed Ali Sharif, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2019.

[U32] Rasoul Sadeghi, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2019.

[U31] Nasrollah Safari, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2019.

[U30] Mehdi Mojaver, Najafabad Branch, Islamic Azad Univ., Final: Jun. 2019.

[U29] Mohammad Adeli, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2018.

[U28] Mojtaba Tanavar, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2018.

[U27] Amir Hosein Allahdadi, Najafabad Branch, Islamic Azad Univ., Final: Sep. 2018.

[U26] Hamed Karami, Najafabad Branch, Islamic Azad Univ., Final: Aug. 2018.

[U25] Saeed Khodaday, Najafabad Branch, Islamic Azad Univ., Final: Jul. 2018.

[U24] Amir Mohsen Rahaei, Najafabad Branch, Islamic Azad Univ., Final: Feb. 2018.

[U23] Mojtaba Heydari, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2017.

[U22] Mohammad Amin Masoudi, Najafabad Branch, Islamic Azad Univ., Final: Sept. 2017.

[U21] Mohammad Sadeghi, Najafabad Branch, Islamic Azad Univ., Final: Aug. 2017.

[U20] Rasool Heydarian, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2015.

[U19] Mohammad Mehdi Heidari, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2015.

[U18] Vahid Amani, Najafabad Branch, Islamic Azad Univ., Final: Oct. 2015.

[U17] Mehdi Pirzal, Najafabad Branch, Islamic Azad Univ., Final: Aug. 2015.

[U16] Mastoore Hashemi, Najafabad Branch, Islamic Azad Univ., Final: July 2015.

[U15] Reza Rostami, Najafabad Branch, Islamic Azad Univ., Final: June 2015.

[U14] Reyhane Moradi, Najafabad Branch, Islamic Azad Univ., Final: Mar. 2015.

[U13] Hadi Zare, Najafabad Branch, Islamic Azad Univ., Final: Feb. 2015.

[U12] Mohsen Karimzadeh, Isfahan Univ. Tech., Main Adviser: Prof. M.E. Hamedani Golshan, Final: Sept. 2014.

[U11] Mohammad Hossein Boostan Afrooz, Isfahan Univ. Tech., Main Adviser: Prof. M.E. Hamedani Golshan, Final: Sept. 2014.

[U10] Reza Ghasemi, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2013.

[U9] Masoud Sharif, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2013.

[U8] Dariush Farhang, Najafabad Branch, Islamic Azad Univ., Final: Dec. 2013.

[U7] Sina Khodabandeh, Najafabad Branch, Islamic Azad Univ., Final: Sept. 2013.

[U6] Ali Safdarian, Najafabad Branch, Islamic Azad Univ., Final: July 2013.

[U5] Arman Fathollahi, Najafabad Branch, Islamic Azad Univ., Final: May 2013.

[U4] Mahyar Farrokhi, Najafabad Branch, Islamic Azad Univ., Final: Apr. 2013.

[U3] Ali Savarnejad, Najafabad Branch, Islamic Azad Univ., Final: Mar. 2013.

[U2] Hamid Nazemi Ardakani, Isfahan Univ. Tech., Main Adviser: Prof. M.E. Hamedani Golshan, Final: Sept. 2012.

[U1] Mousa Khodadadi, Isfahan Univ. Tech., Main Adviser: Prof. M.E. Hamedani Golshan, Final: Sept. 2012.