

## Curriculum Vitae



Maryam Alsadat Akhavan Hejazi, Ph.D.

**Job Title: Full time faculty ( Associate Professor)**

Electrical and Computer Engineering Department

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## Short Biography

I have been an academic member in the department of power engineering, Faculty of Electrical and Computer Engineering in the University of Kashan, since September 2011. I received my Ph.D., M.Sc. and B.Sc. in Electrical Engineering from the Amir-Kabir University of Technology in 2011, 2006 and 2003, respectively, graduating all with First Class Honors. I started my position as an Assistant Professor in University of Kashan in 2011. I continued my work in University of Kashan as Associate Professor from 2021. During my service, I have been in Maternity leave about two years because I have two sons.

## Education



**Doctor of Philosophy in Electrical Engineering (with Outstanding Student Honor)**

*Electrical Engineering Department,  
Amir-Kabir University of Technology (Tehran Polytechnic), Tehran, Iran.*  
Majoring in Power Engineering.

GPA: 18.5/20.00

**Thesis:**

*On-line Monitoring of Transformer Winding Mechanical Damage Using  
Electromagnetic Waves*

Supervisor: Dr. G. B. Gharehpetian

September 2011



**Master of Science in Electrical Engineering (with Outstanding Student Honor)**

*Electrical Engineering Department,  
Amir-Kabir University of Technology (Tehran Polytechnic), Tehran, Iran.*

Majoring in Power Engineering.

GPA: 17.5/20.00

**Thesis:**

*Detection of Transformer Winding Displacement & Deformation Using Electromagnetic Waves(In Persian)*

Supervisor: Dr. G. B. Gharehpetian

September 2006



**Bachelor of Science in Electrical Engineering (Major: Communication)**

*Electrical Engineering Department,  
Amir-Kabir University of Technology (Tehran Polytechnic), Tehran, Iran.*

GPA: 16.6/20.00

**Thesis:**

*Modeling & Simulation of Jammers in Radar System(In Persian)*

Supervisor: Dr. A. Ghorbani

September 2003

**Teaching Statement**

**Undergraduate Courses:**

Introduction to Electrical Engineering, Electrical Machines and Transformers, High Voltage Engineering, Electrical Installations, Power System Analysis I, Relay And Protection, Engineering Electromagnetics, Introduction to Engineering Probability and Statistics, Academic Writing, Electric Circuit 1 and Electric Circuit 2, English for Electrical Engineering

**Graduate Courses:**

Distributed Generation, Scientific Research Method, Energy Storage Systems, Reliability and Risk Analysis, Power System Transients, Application of Pulse Electric Fields in Medicine, Blockchain in Energy Systems, Advanced Academic writing, Machine Learning, Data Mining and Artificial Intelligence Application in Engineering

➤ My teaching videos are available online at:

- [\(4\) Maryam A.Hejazi - YouTube](#)
- [آپارات | مریم السادات اخوان حجازی \(aparat.com\)](#)

## **Research Statement**

### **Interests**

- Smart Grid
- Reliability
- Monitoring
- Distributed Resources
- Blockchain in Energy Systems
- Electroporation for cancer treatment
- Machine Learning applications in Engineering

### **Patents**

#### **Registered in Iran:**

1. G.GharePetyan, M.Hejazi, H.Karami, H.Tabarsa, Sinusoidal Sending Wave Step by Step Procedure in Hyperboloid Method for Detecting Power Transformer HV Winding Radial Defects, Registered under No. 95224 in Iran, March 5, 2018
2. M.Mahmoudi, M.Rahimabadi, M.Hejazi, G.GharePetyan, Dielectric Window for Transformer Winding Radar Imaging, Registered under No. 95040 in Iran, Feb. 17, 2018
3. M.Hejazi, G.Ghare Petyan, R.HeidariNazar, Transformers Winding Earth Fault Detection Based on Magnetic Field Measurement, Registered under No. 95021 in Iran, Feb. 17, 2018
4. Y.Norozi, M.Hejazi, G.GharePetyan, H.Karami, Sinusoidal Sending Wave Step by Step Variations Procedure for Detection of Power Transformer HV Winding Convex and Concave Mechanical Defects, Registered under No. 91648 in Iran, March 15, 2017
5. Y.Norozi, M.Hejazi, H.Karami, G.GharePetyan, Hardware System for Reduction of Power Transformer Winding Axial Displacement Wrong Detection Due to PD During Radar Imaging, Registered under No. 90943 in Iran, Jan. 10, 2017
6. G.GharePetyan, M.Hejazi, M.Kabiri, P.Parvin, KH.Maadanipour, A fiber optic Mach-Zehnder interferometer sensor for axial displacement measurement in power transformers, Registered under No. 83503 in Iran, Aug. 6, 2014
7. G.GharePetyan, H.AlHoseini, M.Hejazi, J.Ebrahimi, Gh.Mokhtari, Software and Hardware Setup to Measure Axial Displacement of Transformer Winding using UWB Waves in Time Domain, Registered under No. 76808 in Iran, Sep. 18, 2012
8. G.GharePetyan, H.AlHoseini, M.Hejazi, Transformer Winding Radial Deformation Estimation System based on Scattering Parameters Measurements, Registered under No. 76668 in Iran, Sep. 9, 2012
9. M.Golsarkhi, M.Hejazi, G.GharePetyan, Mechanical Defects Allocation in Transformer Windings Using Radar Imagining, Registered under No. 73333 in Iran, Jan. 31, 2012
10. H.Tabarsa, M.Hejazi, G.GharePetyan, Image Possessing Procedure for Simultaneous and Accurate Detection of a Few Radial Mechanical Defects in HV Transformer Winding, Registered under No. 97948 in Iran, Feb. 16, 2019

#### **Registered in USA**

11. H.Karami, G.GharePetyan, M.Hejazi, Y.Norozi, Detection of Radial Deformations of Transformers, Patent No.: US 10,782,115 B2, Sep. 22, 2020

## Publications

### Books

1. Maryam. A. Hejazi, Omid Amuzadeh, *"Bitcoin, Ethereum and blockchain in energy grids"*, 2024

### Journal Papers

1. G. Mokhtari, G. B. Gharehpetian, R. Faraji-dana, M. A. Hejazi, *"On-line Monitoring of Transformer Winding Axial Displacement Using UWB Sensors and Neural Network"*, International Review of Electrical Engineering (IREE), Vol. 5, No. 5, October 2010 (ISI-ranked)
2. M. A. Hejazi, G. B. Gharehpetian, G. R. Moradi, M. Mohammadi and H. A. Alehoseini, *"Application of classifiers for On-line Monitoring of Transformer Winding Axial Displacement by Electromagnetic NDT"*, Electric Power Components and Systems, Vol. 39, Issue 4, April 2011, 387 (ISI-ranked)
3. M. A. Hejazi, G. B. Gharehpetian, R. Farajidana, G. R. Moradi, M. Mohammadi and H. A. Alehoseini, *"A New On-line Monitoring Method of Transformer Winding Axial Displacement Based on Measurement of Scattering Parameters and Decision Tree"*, Elsevier Journal of Expert Systems With Applications, Vol. 38, Issue 7, July 2011, pp. 8886-8893 (ISI-ranked)
4. M. A. Hejazi, G. B. Gharehpetian, G. Moradi, H. A. Alehoseini, M. Mohammad, *"On-line Monitoring of Transformer Winding Axial Displacement and its Extent Using Scattering Parameters and k-Nearest Neighbor Method"*, IET Generation, Transmission & Distribution, Vol.5, Issue 8, Oct. 2011, pp. 824-832
5. M. A. Hejazi, J. Ebrahimi, G. B. Gharehpetian, M. Mohammadi, R. Faraji-Dana, G. Moradi, *"Application of Ultra-Wideband Sensors for On-line Monitoring of Transformer Winding Radial Deformations – A Feasibility Study"*, IEEE Sensors Journal, Vol. 12, No. 6, pp. 1649-1659, June 2012 (ISI-ranked)
6. M. S. Golsorkhi, M. A. Hejazi, G. B. Gharehpetian, M. Dehmollaian, *"A Feasibility Study on Application of Radar Imaging for Detection of Transformer Winding Radial Deformation"*, IEEE Transactions on Power Delivery, Vol. 27, No. 4, pp. 2113-2121, (ISI-ranked)
7. Raziye Mosayebi, H. Sheikhzadeh, M. S. Golsorkhi, M. A. Hejazi, G. B. Gharehpetian, *"Detection of Winding Radial Deformation in Power Transformers by Confocal Microwave Imaging"*, Electric Power Components and Systems, Vol. 42, Issue 6, April 2014, pp. 605-611 (ISI-ranked)
8. Abbas Khorshidi, Mahdi Zolfaghari, Maryam Akhavan Hejazi *"Dynamic Modeling and Simulation of Microturbine Generating System for Stability Analysis in Microgrid Networks"* International Journal of Basic Sciences & Applied Research. Vol., 3 (9), 663-670, 2014
9. H. Rahbarimaghani, H. Karami, M. A. Hejazi, M. S. Naderi and G. B. Gharehpetian, *"Determination of Transformer Winding Radial Deformation Using UWB System and Hyperboloid Method"*, IEEE Sensors Journal, Vol. 15, No. 8, Aug. 2015, pp. 4194-4202
10. A. Alehoseini, M. A. Hejazi, G. Mokhtari, G. B. Gharehpetian, M. Mohammadi, *"Detection and Classification of Transformer Winding Mechanical Faults Using UWB Sensors and Bayesian Classifier"*, International Journal of Emerging Electric Power Systems, Vol. 16, Issue 3, May-June 2015, pp. 207–215
11. M. A. Hejazi, *"Voltage Control and Unbalance Compensation Operation Modes of DGs"*, Research Journal of Applied Sciences, Vol. 11, Issue 5, 2016, pp. 171-182.
12. H. Karami, G. B. Gharehpetian, Y. Norouzi, M. A. Hejazi, *"GLRT-Based Mitigation of Partial Discharge Effect on Detection of Radial Deformation of Transformer HV Winding Using SAR Imaging Method"*, IEEE Sensors Journal, Vol. 16, No. 19, Oct. 2016, pp. 7234-7241
13. M. Sabbaghpur Arani, M. A. Hejazi, *"The Comprehensive Study of Electrical Faults in PV Arrays"*, Journal of Electrical and Computer Engineering, Hindawi Publishing Corporation, Volume 2016, Article ID 8712960, <http://dx.doi.org/10.1155/2016/8712960>, 1 oct 2016, pp. 15-24.
14. A. Rahiminejad, B. Vahidi, M.A. Hejazi, S. Shahrooyan, *"Optimal scheduling of dispatchable distributed generation in smart environment with the aim of energy loss minimization"*, Energy, Vol. 116, No. 1, 1 December 2016, Pages 190–201
15. A.A. Khodadoost Arani, H. Karami, G.B. Gharehpetian, M.S.A. Hejazi, *"Review of Flywheel Energy Storage Systems structures and applications in power systems and microgrids"*, Renewable and Sustainable Energy Reviews, Volume 69, 16 November 2016, Pages 9–18
16. M.A Hejazi, Ali Khorrami, Gevork B. Gharehpetian, *"Operation and Maintenance Cost Effect on Optimal Sizing of PV Array and Battery for a Grid-Connected House"*, Renewable Energies and Power Quality Journal (ICREPQ'17), ISSN 2172-038 X, Vol. 15 No. 5, April 2017, DOI: 10.24084/repqj15.391

17. Yaser Toghani Holari, Maryam Akhavan Hejazi, Mehran Gharib Nowkandeh, "Modeling of Generator Units Scheduled And Unscheduled Outage to Optimizing Units Maintenance Scheduling Based on Risk Index" ,IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), 2016-09-20
18. M. Fazli, M. A. Hejazi, "Novel Hierarchical Control of VSI-based Microgrids Against Large-Signal Disturbances", Iranian Association of Electrical & Electronics Engineers, Vol. 15, No. 4, Winter 2018
19. M. A.hejazi, J. Ebrahimi, M. Sabbaghpur Arani, G. Gharehpatian, "OnLine Detection of Transformer Winding Mechanical Faults Using Estimation of the Transfer Function of the UWB Wave Propagation Channel", Journal of Electrical Engineering, University of Tabriz, Volume 47, Issue 4, Serial Number 82 February 2017, Pages 1307-1315
20. Hamed Hashemi-Dezaki, Hossein Askarian-Abyaneh, Amirhasan Shams-Ansari, Mohammad DehghaniSanij, Maryam A. Hejazi, "Direct cyber-power interdependencies-based reliability evaluation of smart grids including wind/solar/diesel distributed generations and plug-in hybrid electrical vehicles", Electrical Power and Energy Systems, Volume 93, Issue In Progress, December 2017, Pages 1–14, <https://doi.org/10.1016/j.ijepes.2017.05.018>
21. Maryam A. Hejazi, "Distributed Generation", Encyclopaedia Foundation of Iran, June 1, 2017 (in Persian)
22. M. A. Hejazi, A.M. Hariri, R. Gelardi, "Reliability Evaluation of Distribution Networks Containing Distributed Generations Using Entropy Index", Journal of Iranian Association of Electrical & Electronics Engineers, Accepted: 2018/10/28 | Published: 2018/10/28, JIAEEE Vol.15 No.3 2018
23. Mohsen Ghorat, Gevork Gharehpetian, Hamid Latifi, Maryam A. Hejazi, Azam Layeghi, "Partial Discharge Acoustic Emission Detector Using Mandrel Connected Fiber Bragg Grating Sensor", Optical Engineering, Vol. 57, No. 7, PP. 1 - 10, 01 July 2018
24. Mehdi Aslinezhad , Maryam Akhavan Hejazi, "New indices for Detection of Turbine blade Tip Deformation and Estimation of Clearance Extent Using Scattering Parameter", Journal of In Iranian Association of Electrical & Electronics Engineers, 2019; 15 (4) :1-10  
URL: <http://jiaeee.com/article-1-790-fa.html>
25. Esam A. Hashim Alkaldy, Maythem A. Albaqir, Maryam Sadat Akhavan Hejazi, "A New load forecasting model considering planned load shedding effect", International Journal of Energy Sector Management , 2019, Vol. 13 No. 1, pp. 149-165. <https://doi.org/10.1108/IJESM-03-2018-0008>
26. H. R. Tabarsa, M. S. A. Hejazi, "Detection of HV Winding Radial Deformation and PD in Power Transformer Using Stepped-Frequency Hyperboloid Method", IEEE Transactions on Instrumentation & Measurement, Volume: 68, Issue: 8, August 2019, Page(s): 2934 – 2942, DOI: 10.1109/TIM.2018.2868491
27. Mohsen Ghorat, Gevork Gharehpetian, Hamid Latifi, Maryam A. Hejazi, "A New Partial Discharge Signal Denoising Algorithm Based on Adaptive Dual-Tree Complex Wavelet Transform", IEEE Transactions On Instrumentation And Measurement, Vol. 67, No. 10, October 2018
28. Maryam Sabbaghpour Arani, Maryam Sadat Akhavan Hejazi, "Online detection and classification of failure in solar farm using bayesian classifier and k nearest neighbor method", Journal of Energy Engineering and Management, Iran, 2018 (in Persian)
29. Ali Mohammad Hariri, Maryam Sadat Akhavan Hejazi, Hamed Hashemi Dezaki, "Appropriate load modeling in smart distribution grids reliability assessment considering speed and accuracy", Iranian Journal of Quality Productivity and Electricity Industry, Iran, 2019 (in Persian)
30. Mehdi Asli Nejad, Maryam Sadat Akhavan Hejazi, "A new online monitoring method for turbine blade tip using microwave sensor and k nearest neighbor classification algorithm (k-NN)", Journal of Electrical Engineering University of Tabriz, Iran, 2019 (in Persian)
31. A.M. Hariri, M. A. Hejazi, H. Hashemi-Dezaki, "Reliability optimization of smart grid based on optimal allocation of protective devices, distributed energy resources, and electric vehicle/ plug-in hybrid electric vehicle charging stations", Journal of Power Sources, Netherlands, 2019
32. Hamed Hashemi-Dezaki, A.M. Hariri, M. A. Hejazi, "Impacts of load modeling on generalized analytical reliability assessment of smart grid under various penetration levels of wind/solar/non-renewable distributed generations", Sustainable Energy, Grids and Networks, Vol.20, No.1, 2019-09-04
33. H. Karami, H. Tabarsa, G. B. Gharehpetian, Y.Norouzi, M. A. Hejazi, "Feasibility Study on Simultaneous Detection of Partial Discharge and Axial Displacement of HV Transformer Winding Using Electromagnetic Waves", IEEE Transactions on Industrial Informatics, Vol.16, No.1, 2020-01-01

34. Mehdi Aslinezhad, M. A. Hejazi, "Turbine Blade Tip Clearance Determination Using Microwave Measurement and k-Nearest Neighbour Classifier", Journal of the International Measurement Confederation, Vol.151, No.127, 107142, 2019-10-15
35. Mohsen Ghorat, Gevork Gharehpetian, Hamid Latifi, Maryam A. Hejazi, M Bagheri "High-Resolution FBG-Based Fiber-Optic Sensor with Temperature Compensation for PD Monitoring", SENSORS-BASEL, Vol.19, No.23, 2019-11-30
36. A.M. Hariri, M. A. Hejazi, Hamed Hashemi-Dezaki, "A novel generalized analytical reliability assessment method of smart grids including renewable and non-renewable distributed generations and plug-in hybrid electric vehicles", Reliability Engineering & System Safety, Vol.196, No.1, 2019-11-11
37. J. Faraji, M. Babaei, N. Bayati, M. A. Hejazi, "A Comparative Study between Traditional Backup Generator Systems and Renewable Energy Based Microgrids for Power Resilience Enhancement of a Local Clinic", Electronics, Vol.8, No.12, 2019-12-5
38. M. Mahmoudi, S. M. Nori Rahim abadi, H. Karami, Gevork Gharehpetian, Maryam A. Hejazi, "Design and Implementation of Dielectric Windows for Detection of Radial Deformation of HV Transformer Winding Using Radar Imaging", IET Science, Measurement & Technology, Vol.14, No.4, 2020-05-18
39. H. Karami, Gevork Gharehpetian, Y. Norouzi, Maryam A. Hejazi, "Simultaneous radial deformation and partial discharge detection of high-voltage winding of power transformer", IET Electric Power Applications, Vol.14, No.3, 2020-03-12
40. M.R. Iranpour, Maryam A. Hejazi, M. Shahidehpour, "A Unified Approach for Reliability Assessment of Critical Infrastructures using Graph Theory and Entropy", IEEE Transactions on Smart Grid, Vol.11, No.6, 30 June 2020
41. A.M. Hariri, Hamed Hashemi-Dezaki, M. A. Hejazi, "Investigation of impacts of plug-in hybrid electric vehicles stochastic characteristics modeling on smart grid reliability under different charging scenarios", Journal of Cleaner Production, Vol.287, No.1, 2020-12-10
42. Ahmad Aziznia, Maryam A. Hejazi, "Load Modeling of The Pulsed Power Generators for Electroporation Using Impedance Spectroscopy of Human Lung Normal and Cancer Cells", Tabriz Journal of Electrical Engineering (TJEE), vol. 52, no. 1, Spring 2022 (in Persian)
43. Mohammad Ghasemloo, Maryam A. Hejazi, Hamed Hashemi-Dezaki, "Flexibility Optimization in Robust Co-Optimization of Combined Power System and Gas Networks Using Transmission Lines' Switching", electronics, vol. 11, no. 17, 24 August 2022
44. Mehrdad Aslani, Amir Imanloozadeh, Hamed Hashemi-Dezaki, Maryam A. Hejazi, Mohammad Nazififard, Abbas Ketabi, "Optimal probabilistic reliability-oriented planning of islanded microgrids considering hydrogen-based storage systems, hydrogen vehicles, and electric vehicles under various climatic conditions", Journal of Power Sources, vol. 525, no. 1, 11 February 2022.
45. Ahmad Aziznia, Maryam A. Hejazi, "Flexible Pulsed Power Generator to Create Wide Range of Pulses for Cancer Treatment", Iranian Journal of Electrical and Electronic Engineering, Vol. 19, No. 1, 2023
46. Ali Vafadar, Maryam A. Hejazi, Hamed Hashemi-Dezaki, and Negin Mohagheghi, "Optimal Protection Coordination of Active Distribution Networks Using Smart Selection of Short Circuit Voltage-Based Relay Characteristics", Energies 16, no. 14: 5301, 2023, <https://doi.org/10.3390/en16145301>
47. Mahmoud Mohammad Hasan, Maryam A. Hejazi, Hossein Karami, "Diagnosis of Radial Deformation and Axial Displacement Faults in Power Transformer Windings using X-ray and Compton Backscatter Imaging", J. Electrical Systems 20-3 (2024):4457-4468, <https://doi.org/10.52783/jes.5774>

### ***Invited Key Notes***

1. H. Karami Porzani, G. B. Gharehpetian, Y. Norouzi, M. S. Akhavan Hejazi, "Feasibility Study on On-line and Simultaneous Transformer Winding Radial Deformation and PD Localization Using Electromagnetic Waves", Invited paper, 2nd International Transformer Conference and Exhibition, ITCE 2015, Tehran, Iran, 1-2 Sep., 2015 (in Persian)
2. M. A. Hejazi and G. B. Gharehpetian, "A Review on Power Transformer Winding Monitoring for Detection of Axial Displacement and Radial Deformation Using Electromagnetic Waves", 1st International Transformer Conference and Exhibition, Tehran, Iran, 16-17 Sep. 2014 (in Persian)

## **Conference Papers**

1. M.A. Hejazi, G.B. Gharehpetian, A. Mohammadi "A New Monitoring Method for Transformer Winding Axial Displacement Using Electromagnetic Waves" , 21-th International Power System Conference, Nov. 13-15, 2006, Tehran, Iran (in Persian)
2. M.A. Hejazi, G.B. Gharehpetian, A. Mohammadi, "The Oil Effect On The Transformer Winding Monitoring Using Electromagnetic Waves", 21-th International Power System Conference, Nov. 13-15, 2006, Tehran, Iran (in Persian)
3. M. Hejazi, G. B. Gharehpetian and A. Mohammadi, "Characterization of On-line Monitoring of Transformer Winding Axial Displacement Using Electromagnetic Waves", 15th International Symposium on High Voltage Engineering, ISH 2007, Aug. 27-31, 2007, Ljubljana, Slovenia
4. M. Hejazi, G. B. Gharehpetian and A. Mohammadi, "On-line Monitoring of the Radial Deformation of Transformer Winding using Radar Cross Section", 15th International Symposium on High Voltage Engineering, ISH 2007, Aug. 27-31, 2007, Ljubljana, Slovenia
5. H. Yazdanpanahi, M. A. Hejazi and G.B. Gharehpetian, "Non-linear Modeling of Transformer Using Hammerstein Method", 22-th International Power System Conference, Nov. 19-21, 2007, Tehran, Iran (in Persian)
6. M. Choopani, M.A. Hejazi, G. B. Gharehpetian, G. Moradi, "Antenna Placement On The Transformer For The Detection Of Low Voltage Winding Axial Displacement Using Electromagnetic Waves", 22-th International Power System Conference, Nov. 19-21, 2007, Tehran, Iran (in Persian)
7. M. Choopani, M.A. Hejazi, G.B. Gharehpetian, S.H. Sadeghi, "Non-Destructive Test Modeling of Transformer Winding Using Simplified Model of Three-Phase Transformer", The 2nd International Conference on Technical Inspection and NDT (TINDT2008)- October 2008 - Tehran, Iran (in Persian)
8. H. Hashemi Dezaki, M. A. Hejazi and G.B. Gharehpetian, "Determination of Antenna Excitation Installed on Transformer Tank to Detect Axial Displacements", 23-th International Power System Conference, 30 Nov. - 2 Dec., 2008, Tehran, Iran (in Persian)
9. H. Yazdanpanahi, M.A. Hejazi, G.B. Gharehpetian and M. Karrari, "Non-linear Modeling of Transformer using Hammerstein Model", 2nd IEEE International Conference on Power and Energy 2008 (PECon 2008), 1-3 December 2008, Johor Bahru, Malaysia.
10. M.A. Hejazi, M. Choopani, M. Dabir and G.B. Gharehpetian, "Effect of Antenna Position of Transformer Winding Axial Displacement Measurement Using Electromagnetic Waves", 2nd IEEE International Conference on Power and Energy 2008 (PECon 2008), 1-3 December 2008, Johor Bahru, Malaysia.
11. M. A. Hejazi, J. Ebrahimi, G. B. Gharehpetian, R. Faraji-Dana and M. Dabir, "Feasibility Studies on On-line Monitoring of Transformer Winding Mechanical Damage Using UWB Sensors", XIX International Conference on Electrical Machines, ICEM 2010, September 6-8, 2010, Rome, Italy
12. G. Mokhtari, M. A. Hejazi and G. B. Gharehpetian, "Simulation of On-line Monitoring of Transformer Winding Axial Displacement Using UWB Waves", XIX International Conference on Electrical Machines, ICEM 2010, September 6-8, 2010, Rome, Italy
13. G. Mokhtari, G. B. Gharehpetian, R. Faraji Dana, H. A. Ale Hosseini and M.A. Hejazi "Modeling and Detection of Axial Displacement of Transformer Winding Using UWB Sensors and Determination of Displacement Extent Using ANN", 25-th International Power System Conference, 8-10 Nov. 2010, Tehran, Iran (in Persian)
14. J. Ebrahimi, G. B. Gharehpetian, H. R. Amindavar and M. A. Hejazi "Application of DWT for on-line Detection of Transformer Winding Radial Deformation Based on Measurements Using UWB Sensors", 25-th International Power System Conference, 8-10 Nov. 2010, Tehran, Iran (in Persian)
15. M. A. Hejazi, H. A. Ale Hosseini, G. B. Gharehpetian, "Index Suggestion for Transformer Winding Axial Displacement by Using Scattering Parameters", 25-th International Power System Conference, 8-10 Nov. 2010, Tehran, Iran (in Persian)
16. M. A. Hejazi, H. A. Alehoseini and G. B. Gharehpetian, "Detection of Transformer Winding Axial Displacement Using Scattering Parameter and ANN", 3rd International Power and Energy Conference (PECon), Nov. 29- Dec. 1, 2010, Kuala Lumpur, Malaysia
17. J. Ebrahimi, G. B. Gharehpetian, H. Amindavar and M. A. Hejazi, "Antennas Positioning for On-line Monitoring of Transformer Winding Radial Deformation Using UWB Sensors", 3rd International Power and Energy Conference (PECon), Nov. 29- Dec. 1, 2010, Kuala Lumpur, Malaysia
18. J. Ebrahimi, G. B. Gharehpetian, H. Amindavar and M. A. Hejazi, "Detection of Transformer Winding Radial Deformations by Using UWB Pulses and DWT", 3rd International Power and Energy Conference (PECon), Nov. 29- Dec. 1, 2010, Kuala Lumpur, Malaysia

19. H. A. Alehoseini, M. A. Hejazi and G. B. Gharehpetian, "Transformer Winding Radial Deformation Detection Using Scattering Parameters", 3rd International Power and Energy Conference (PECon), Nov. 29- Dec. 1, 2010, Kuala Lumpur, Malaysia
20. G. Mokhtari, G. B. Gharehpetian, R. Faraji-Dana and M. A. Hejazi, "Modelling of On-line Monitoring of Transformer Winding Radial Deformation Using UWB Sensors", 3rd International Power and Energy Conference (PECon), Nov. 29- Dec. 1, 2010, Kuala Lumpur, Malaysia
21. H. A. Hejazi, M. A. Hejazi, G. B. Gharehpetian and M. Abedi, "Distributed Generation Site and Size Allocation Through a Techno Economical Multi-objective Differential Evolution Algorithm", 3rd International Power and Energy Conference (PECon), Nov. 29- Dec. 1, 2010, Kuala Lumpur, Malaysia
22. G. Mokhtari, G. B. Gharehpetian, R. Faraji-Dana and M. A. Hejazi, "Modelling of Tank Effect in Transformer Winding Radial Deformation Monitoring Using UWB Sensors", 19th Iranian Conference on Electrical Engineering, Tehran, Iran, 17-19 May 2011
23. M. S. Golsorkhi Esfahani, M. A. Hejazi and G.B. Gharehpetian, "Determination of Radial Deformation Extent of Power Transformer Winding Using Radar Imaging", 26-th International Power System Conference, 31 Oct.-2 Nov. 2011, Tehran, Iran (in Persian)
24. M.A. Hejazi, J. Ebrahimi and G.B. Gharehpetian, "Determination of Radial Deformation Location in Power Transformer Winding Using UWB Antennas and Hyperbolic Method", 26-th International Power System Conference, 31 Oct.-2 Nov. 2011, Tehran, Iran (in Persian)
25. Mehdi Zolfaghari, M.A. Hejazi, "Design and Simulation of Grouding Alashtar Subtransmission Substation Using finite element method and optimization IEEE Std 80- 2000", 4th Iranian Conference on Electrical and Electronic Engineering, Gonabad Azad University, 28-30/August/2012, Gonabad, Iran (in Persian)
26. Hesam Rahbari Magham M.A. Hejazi M. S. Naderi and G.B. Gharehpetian, "Radial Deformation Location Determination in Axial Direction of Power Transformer Winding using UWB Static Antennas and Hyperbolic Method", 27-th International Power System Conference, Nov. 12-14, 2012, Tehran, Iran (in Persian)
27. Hossein Karami Parzani, M.A. Hejazi, M.S. Naderi and G.B. Gharehpetian, "3D Simulation for PD Allocation in Power Transformer based on Received Signals of UWB Antennas", 27-th International Power System Conference, Nov. 12-14, 2012, Tehran, Iran (in Persian)
28. S. Mortazavian, G. B. Gharehpetian, M. Akhavan Hejazi, M. S. Golsorkhi, and H. Karami, "A Simultaneous Method for Detection of Radial Deformation and Axial Displacement in Transformer Winding Using UWB SAR Imaging", 4th Conference on Thermal Power Plants (Gas, Combined Cycle, and Steam), Dec. 18-19, 2012, Tehran, Iran
29. H. Rahbari Magham, M.S. Naderi, G.B. Gharehpetian, M.A. Hejazi and H. Karami Porzani, "A Novel Method for Exact Determination to Localize Radial Deformation along the Transformer Winding Height", 4th Conference on Thermal Power Plants (Gas, Combined Cycle, and Steam), Dec. 18-19, 2012, Tehran, Iran
30. H. Karami, M.S.A. Hejazi, M.S. Naderi, G.B. Gharehpetian, S. Mortazavian, "Three-dimensional Simulation of PD Source Allocation Through TDOA Method", 4th Conference on Thermal Power Plants (Gas, Combined Cycle, and Steam), Dec. 18-19, 2012, Tehran, Iran
31. H. Karami, M. S. A. Hejazi, G. B. Gharehpetian, "Simulation of Transformer Oil Effect on PD Source Allocation", 4th Conference on Partial Discharge in Electrical Apparatus (PDC'13), 26-27 Feb. 2013, Tehran, Iran
32. H. Rahbari Magham, M. A. Hejazi, H. Karami Porzani, M. S. Naderi and G. B. Gharehpetian, "Exact Determination of a Winding Disk Radial Deformation Location Considering Tank Effect Using an Analytical Method", 21st Iranian Conference on Electrical Engineering, Mashhad, Iran, 14-16 May 2013
33. M. A. Hejazi, Wahid separi, Mehdi Zolfaghari "Assessment and simulate of a Micro-CHP system implemented in Denmark", Iranian Conference on Combined Cooling, Heating and Power Generation and Hybrid Systems (CCHP2013), Energy Research Institute, Kashan University, 28-29August 2013, Kashan , Iran (in Persian)
34. M. Nazifi Fard, M. A. Hejazi, "Assessment of the Night Vision of the main Kashan Passages for Decreasing Energy Consumption and illumination Quality improrement", Iran lighting Design Conference, 16-18/December/2013, Civilica, Shiraz , Iran (in Persian)
35. H. Karami, M. A. Hejazi, H. Rahbari Magham, M. J. Sanjari and G. B. Gharehpetian, "Power Transformers Reliability Enhancment in Power Grid Using UWB Antennas", 3rd International Reliability Engineering Conference, Tehran, Iran, Feb 4-5, 2014 (in Persian)
36. H. Rahbari Magham, M. A. Hejazi, H. Karami, , M.S. Naderi and G. B. Gharehpetian, "Reliability Enhancement with Radial Deformation Localization in Power Transformer Winding Using Electromagnetic Waves and based on matched Filters", 3rd International Reliability Engineering Conference, Tehran, Iran, Feb 4-5, 2014 (in Persian)



37. H. Karami, M.J. Sanjari, A. Tavakoli, G.B. Gharehpetian, M.S.A. Hejazi, "HSA-Based Optimal Allocation and Sizing of Shunt Compensators Considering Cable Aging Constraint and Load Variations", International Conference on Renewable Energies and Power Quality, ICREPO'14, Cordoba, Spain, 8-10 April, 2014
38. Mohsen Fazli, M.A. Hejazi, G. B. Gharehpetian and H. R. Baghaee, "New Hierarchical Control in Microgrids with VSI-based DGs", 19-th Electric Power Distribution Conference, EPDC 2014, Tehran, Iran, May 6-7, 2014 (in Persian)
39. M. A. Hejazi and G. B. Gharehpetian, "A Review on Power Transformer Winding Monitoring for Detection of Axial Displacement and Radial Deformation Using Electromagnetic Waves", 1st International Transformer Conference and Exhibition, Tehran, Iran, 16-17 Sep. 2014 (in Persian)
40. H. Ale Hosseini, G. B. Gharehpetian, M. A. Hejazi and M. Sabaghpour Arani, "Pattern Recognition Methods Comparison for Interpretation of Measurements Results of Power Transformer Winding Model to Detect Radial and Axial Defects", 29-th International Power System Conference, Oct. 27-29, 2014, Tehran, Iran (in Persian)
41. M. A. Hejazi, M. Sabaghpour Arani, G. Mokhtari and G. B. Gharehpetian, "Measurement of Tank Effect on Transformer Winding Radial Deformation Detection Method Using Electromagnetic Waves", 29-th International Power System Conference, Oct. 27-29, 2014, Tehran, Iran (in Persian)
42. M. Rowhani, M.A. Hejazi, A. Rahiminezhad, "Optimal scheduling of Micro turbines generation in Smart Grid with the Aim of Energy Loss Minimization", 29-th International Power System Conference, Oct. 27-29, 2014, Tehran, Iran (in Persian)
43. M. Asli Nejad, A. Safari, M.A. Hejazi, H. Moein Poor, "Design and implementation of the continuous MMIC phase shifter in band C", University of Science and Technology of Shahid Satari, the Seventh National Conference of Iranian electronic warfare, 21,22/January/2015, Tehran, Iran
44. Mohammad Karabi, Hamed Amiri, M.A. Hejazi, "Assessment of the impacts solar power plant of high penetration connected to distribution network", 2nd International Conference and Exhibition on Solar Energy, 30,31/August/2015, Tehran University, Tehran, Iran (in Persian)
45. Hossein Karami, Georek Gharehpetian, Yaser Noroozi, Maryam.A. Hejazi, "The possibility of detecting radial deformation and localizing a partial fault in the transformer winding online and simultaneously using electromagnetics "Second International Conference". Transformer University Tarasht Power Plant, Tehran, Iran
46. Mohammad Karabi, Hamed Amiri, M. Akhavan Hejazi, "Assessment of the cloud shadowing Penetrated Photovoltaic System", The international conference on applied Research in Electrical Engineering and Computer Science, institution of higher education Nikan, 9/September/2015, Tehran, Iran (in Persian)
47. H. Karami, G. B. Gharehpetian, Y. Noroozi, M. A. Hejazi, "Application of GLRT Method for On-line and Simultaneous Detection of Radial Deformation and Localization of PD in Transformer Winding Using Electromagnetic Waves", 30-th International Power System Conference, Nov. 23-25, 2015, Tehran, Iran (in Persian)
48. Mohammad Hossein Karimi Nejad, M. A. Hejazi, Hamid Reza Mohammadi, Mohammad Rasoul Raeyat, Mohammad Reza Karimi Nejad, "Economic Assessment of building management system in one of the University buildings", 30rd International Power System Conference, Power Research Institute, 2-4/November/2015, Tehran, Iran (in Persian)
49. M. Ghorat, A. Layeghi, M. Ghafari, M. S. A. Hejazi, G.B. Gharehpetian, H. Latifi, "Denosing of Partial Discharge Acoustic Signal Using Dual-Tree Complex Wavelet Transformation", 6-th Conference on Thermal Power Plants, CTPP2016 (Gas, Combined-Cycle, Steam), 19-20 January 2016, Tehran Iran (in Persian)
50. H. Karami, G. B. Gharehpetian, Y. Noroozi, M. S. A. Hejazi, "Study on Being Simultaneous and On-line for Axial Displacement and Partial Discharge Detection in Power Transformer Windings Using Electromagnetic Waves", 6-th Conference on Thermal Power Plants, CTPP2016 (Gas, Combined-Cycle, Steam), 19-20 January 2016, Tehran Iran (in Persian)
51. H. Karami, M. Ghorat, G. B. Gharehpetian, M. S. A. Hejazi, Y. Noroozi and A. Rajoli, "Implementation of Radar Imaging Using Electromagnetic Waves to Detect Radial Deformation in 30MVA Repaired Transformer", 6-th Conference on Thermal Power Plants, CTPP2016 (Gas, Combined-Cycle, Steam), 19-20 January 2016, Tehran, Iran (in Persian)
52. H. Karami, G. B. Gharehpetian, Y. Noroozi, M. A. Hejazi, "Noise Effect in Using GLRT for On-line and Simultaneous Detection of Radial deformation and PD in Transformer Winding Using Electromagnetic Waves", 8-th Electric Power Generation Conference, EPGC 2016, 16-17 Feb., 2016, Tehran, Iran (in Persian)
53. M. Ghasemlo, A. R. Raeisi, A. Ketabi, M. A. Hejazi, "Maximum Power Point Tracking of Photovoltaic System based on Perturbation and Observation", 21st Electrical Power Distribution National Conference, Islamic Azad university, 26&27 April 2016, Karaj, Iran (in Persian)

54. H. Karami, G. B. Gharehpetian, Y. Norouzi, M. A. Hejazi, "GLRT-Based Mitigation of Partial Discharge Effect on Detection of Radial Deformation of Transformer HV Winding Using SAR Imaging Method", Thirty-first International Conference on Electricity, 2016, Tehran, Iran (in Persian)
55. M.A Hejazi, Ali Khorrani, Gevork B. Gharehpetian, "Operation and Maintenance Cost Effect on Optimal Sizing of PV Array and Battery for a Grid-Connected House", International Conference on Renewable Energies and Power Quality (ICREPQ'17), ISSN 2172-038 X, No.15, 4 to 6 April 2017, Malaga, Spain
56. H. R. Tabarsa, M. S. A. Hejazi, H. Karami and G. B. Gharehpetian, "Radial Deformation Defect Detection Using Frequency Response Analysis Methods and Radar Imaging with Electromagnetic Waves Along with Test on 30MVA Repaired Transformer", 31-st International Power System Conference, Oct. 24-26, 2016, Tehran, Iran (in Persian)
57. Hossein Karami, G. B. Gharehpetian, M. A. Hejazi, Yaser Norouzi, "Experimental Study on Elimination of Partial Discharge Effect on Detection of Radial Deformation of High Voltage Transformer Winding Using Electromagnetic Waves", 18th IEEE International Conference on Environment and Electrical Engineering, IEEE EEEIC18, Palermo, Italy, 12-15 June 2018
58. Seyyed Abbas Taher, M. A. Hejazi, Rasoul Raeyat, "Solar energy potential in zero-energy buildings Solar energy generation systems in zero energy buildings using the energy hub concept", 33-th International Power System Conference, Oct. 22-24, 2018, Tehran, Iran (in Persian)
59. Iman Talebniya, H Hashemi, M. A. Hejazi, "Multi-level energy management of DC microgrid based on optimal power dispatch between electrical energy sources and storage systems", 33-th International Power System Conference, Oct. 22-24, 2018, Tehran, Iran (in Persian)
60. M. Kamali, M.A.Hejazi, M. Mohammadi, "Design of PHEV charge control algorithm considering vehicle to grid capability", The 4th Iranian Conference on Renewable Energy & Distributed Generation (ICREDG2016), Feb. 2016, Faculty of Engineering Ferdowsi University of Mashhad, Mashhad, Iran (in Persian)
61. S. Golabi, A. Hoseini, M. A. Hejazi, H. Zamani, "Evaluation and feasibility study of applying 1 kW helical wind turbine in the university of Kashan", 27th Annual International Conference on Mechanical Engineering of Iran, ISME2019, May 2017, Tarbiat Modares University and Iranian Association of Mechanical Engineers, Tehran, Iran (in Persian)
62. S. Golabi, A. Hoseini, M. A. Hejazi, H. Zamani, "Studing optimum design and construction of Savonius wind turbine blade", 6th Annual Clean Energy Conference, March 2017, Shiraz University, Shiraz, Iran (in Persian)
63. Hossein Karimi, Gevork B. Gharehpetian, H. Tabarsa, M. A. Hejazi, N. Ajoudani Zanjani, "Feasibility Study on Dielectric Window Installation on 3-Phase Transformer and Mechanical Defects and PD Detection Using Electromagnetic Waves", 33rd International Power System Conference, October 2018 (in Persian)
64. Mohammad Reza Iranpour, Maryam A.Hejazi, Reza Arghandeh, "Probabilistic Voltage Instability Assessment of Smart Grid Based on Cross Entropy Concept", 10th Smart Grid Conference (SGC),16/12/2020, University of Kashan, Kashan, Iran
65. Vahid Shabani, Maryam A.Hejazi, Hamed Teekany, "Energy Management of a Smart Home Micro Grid in Presence of Micro-CCHP", 10th Smart Grid Conference (SGC),16/12/2020, University of Kashan, Kashan, Iran
66. Soudeh Kamjoo, Maryam A. Hejazi, Amir Naderi, "FMEA based on life cycle costing, a case study in the steel industry", 3rd International Conference on Challenges and New Solutions in Industrial Engineering, Management and Accounting, 2022/11/10, Chabahar, Iran (in Persian)
67. Rasoul Amery, Maryam A. Hejazi, Hamed Hashemi, "Load prioritization for a critical infrastructure microgrid with mitigation objectives Risk using the concept of entropy", 34-th International Power System Conference, Nov. 18-20, 2019, Tehran, Iran (in Persian)
68. Maryam A.Hejazi, Reza PirNia, Nasrin Deldadeh, "Design and Simulation of Nano-Second Pulsed Power Generator for Cancer Treatment and Considering Load Effect", 31st International Conference on Electrical Engineering (ICEE), 2023, Tehran, Iran
69. Pegah Esmaeili, Hossain-Ali Rafiee-Pour, Maryam Sadat Akhavan Hejazi, Shahram Teimourian, Reza Faraji-Dana, Mohammad Hamed Samimi, "Effects of Irreversible Electroporation on Death of Triple Negative Breast Cancer Cells Under In Vitro Condition", 18th National Congress of Biochemistry & 9th International Congress of Biochemistry & Molecular Biology, 14 October 2024, Tehran, Iran

### **Awards**

***By University of Kashan as the best researcher in Electrical and Computer Engineering Department (2020)***

## **Graduate Students**

### **Ph.D.**

1. Hosein Karami (Ph.D. Graduate, co-advised with Dr. Gharehpetian - 2018)  
*"Implementation of Simultaneous Detection and Localization of Partial Discharge and Mechanical Defects in power Transformers Using Electromagnetic Waves"*
2. Mohsen Ghorat (Ph.D. Graduate, co-advised with Dr. Gharehpetian - 2018)  
*"Detection and Localization of Partial Discharge Using Fiber Optic Sensor"*
3. Mehdi Aslinejad (Ph.D. Graduate - 2019)  
*"Gas power plant reliability improvement by online monitoring of turbine blade using electromagnetic wave"*
4. Hamidreza Tabarsa (Ph.D. Graduate - 2019)  
*"Simultaneous detection of winding radial deformation and partial discharge with electromagnetic waves and hyperboloid method in power transformers"*
5. Ali Mohammad Hariri (Ph.D. Graduate - 2019)  
*"Reliability Evaluation of the Smart Distribution System in Presence of Distributed Generations and PHEVs Based on Analytical Model"*
6. Ahmad Aziznia (Ph.D. Graduate - 2023)  
*"Design and Implementation of Pulsed Power Generator for Evaluation and Optimization of Effective Parameters on Cancer Treatment"*
7. Mohammad Ghasemloo (Ph.D. Graduate - 2023)  
*"Simultaneous Operation of Power System and Gas Network Considering Flexibility Maximization"*
8. Mahmoud Mohammad Hasan (Ph.D. Graduate - 2023)  
*"Feasibility Study of Radial Deformation Detection in Transformer Windings Using Various Radiation"*

### **M.Sc.**

1. Shahed Mortazavian (M.Sc. Graduate – 2013)  
*"Detection and Determination of Transformer Winding Mechanical Deformation Using UWB Transceiver"*
2. Hesam Rahbari-Magham (M.Sc. Graduate – 2013)  
*"Exact Determination of the Transformer Winding Radial Deformation Location Using Ultrawideband Antenna and Time Domain Analysis"*
3. Vahid Separi (M.Sc. Graduate – 2013)  
*"Design of a microgrid for the application in Smart Grid Laboratory"*
4. Shahabodin Mazidi Sharaf Abadi (M.Sc. Graduate – 2013)  
*"Sizing of Energy Storage for Micro grids by Using Mixed Integer Linear Programming Considering Probability Parameters"*
5. Ali Khorami (M.Sc. Graduate – 2013)  
*"Optimal Sizing of Combined PV-Energy Storage for Grid-Connected Residential Buildings"*
6. Abbas Khorshidi (M.Sc. Graduate – 2014)  
*"Modeling and Stability Analysis of A MTG Connected to A Local Network at Different Disturbances"*
7. Esmail Zarei (M.Sc. Graduate – 2014)  
*"Smart Energy Management System For Optimal Micro-grid Economic Operation Using Particle Swarm Optimization"*

8. Mojtaba Rowhani (M.Sc. Graduate – 2014)  
*"Optimal DG Sizing in Smart Distribution Network in order to Minimize Active Power Losses and Using Evolutionary Algorithms"*
9. Mohsen Fazli (M.Sc. Graduate – 2014)  
*"Control and real-time simulation of nonlinear micro grids using robust controllers"*
10. Hosein Habibi (Msc. Graduate-2014)  
*"Distributed generation penetration level determination considering reliability and voltage stability"*
11. Monir Kamali (M.Sc. Graduate – 2015)  
*"The effect of real time pricing on stochastic scheduling of residential loads"*
12. Reza Gelardi (Msc. Graduate – 2015)  
*"Reliability Evaluation Of Distribution Networks Containing Distributed Generations Using Entropy Index"*
13. Mohammad Reza Iranpur (Msc. Graduate – 2015)  
*"On-line Monitoring Of Microgrids Reliability Using Cross-entropy and Graph Entropy"*
14. Maryam Sabaghpur (Msc. Graduate-2016)  
*"Optimizing of the number and location of measurement point of voltage and current for fault detection in DC side of photovoltaic array"*
15. Nasrin Baghai (Msc. Graduate-2016)  
*"Optimal Placement of SVC and TCSC for Static Voltage Stability Using RDP SO Considering Technical and Economical Approach"*
16. Vahid Shabani (Msc. Graduate-2016)  
*"Energy Management of a Smart Residential Microgrid in the presence of Micro-CCHP and Photovoltaic Systems"*
17. Hosein Dehghan (Msc. Graduate -2016)  
*"Improvement Of Voltage And Frequency Stability In Stand Alone Microgrids With Microturbine Using Energy Storage System"*
18. Masome Mahmoodi (Msc. Graduate-2016)  
*"Designing and Construction of Dielectric Window for Radar Imaging of Transformer Winding"*
19. Abolfazl Hoseini (Msc. Graduate co-advised with Dr. Golabi-2017)  
*"Optimum design and construction of the Savonius wind Micro turbine"*
20. Ali Akbar Amiri (Msc. Graduate -2018)  
*"Design for Reliability of a Stand-Alone Photovoltaic Microgrid for DC Load Supplying and Implementation"*
21. Fatimah Yaseen Abdullah (Msc. Graduate -2018)  
*"Design and simulation for smart earthing grid in Electrical power substation"*
22. Maythem Albaqer (Msc. Graduate -2018)  
*"Study and evaluating the growth of the loads and their effects on the electrical grid in holly Najaf city using forecasting methods"*
23. Rasoul Raeyat (Msc. Graduate co-advised with Dr. Taher -2018)  
*"Renewable-Based CHP Energy Management Scheme for Building by Using Energy Hub Concept"*
24. Iman Talebnia (Msc. Graduate -2018)  
*"Multi-level Energy Management of Microgrid Including Distributed Generations and Storage Systems"*
25. Hamed Tikani (Msc. Graduate -2018)  
*"Customer Battery Size Optimization for Weekly Commercial Customer-side Peak Load Shaving and the Effect of it on Customer Charge"*
26. Keyvan Safarlo (Msc. Graduate -2019)  
*"Experimental evaluation of solar power plant performance in hot and dry climate and in dusty air conditions"*

27. Rasoul Ameri (Msc. Graduate -2019)  
*"Load Prioritization for a Critical Infrastructure Micro-grid based on Risk Mitigation Using the Concept of Entropy"*
28. Mostafa Sohrabi (Msc. Graduate -2019)  
*"Integrated Energy Infrastructure Reliability Indices Evaluation with Agent-Based Modelling"*
29. Reza Pirnia (Msc. Graduate -2021)  
*"Design and Simulation of Nano-Second Pulsed Power Generator for Cancer Treatment and Evaluation of Load Characteristics"*
30. Ali Vafadar (Msc. Graduate -2022)  
*"Optimal Protection Coordination of Active Distribution Networks Using Short Circuit Voltage-based Operating Characteristics"*
31. Kaveh Asadi (Msc. Graduate -2022)  
*"Reliability enhancement of the power transformer by monitoring of the outer layer of the high voltage winding using optical camera and image processing"*
32. Arefeh Jaberri (Msc. Graduate -2022)  
*"Optimization of Electrical Energy Systems Based on Renewable Distributed Generations Considering Cryptocurrency Mining Farms"*
33. Bahreh Bayati (Msc. Graduate -2024)  
*"Feasibility, design and simulation of using a pulsed power generator for non-cancerous skin lesions treatment"*
34. Negin Mohagheghi Alavijeh (Msc. Graduate -2024)  
*"Improving cyber security in transactions between power system networks by a version of blockchain technology called Hyper ledger Fabric"*
35. Erfan Zamani (Msc. Graduate -2024)  
*"Enhancing SCADA System Security against Cyber-Physical Attacks Using Blockchain"*
36. Mohamad Kazemi Babaheydari (Msc. Graduate -2024)  
*"Designing a decentralized platform based on blockchain for economical transactions of Prosumers"*
37. Eshagh Seifouri (Msc. Graduate -2024)  
*"Designing various types of high voltage pulse transmission probes for cancer treatment by electroporation method"*

#### **Industry Founded Projects**

1. Feasibility Study of On-line Measurement of Transformer Winding Displacement Using UHF wave, Iranian Research Organization for Science and Technology, Ministry of Higher Education, Iran, 2005, (Executive manager).
2. Measurement of Radial Deformation and Axial Displacement of Transformer Winding On Prototype Using Electromagnetic Waves, Tehran Regional Electric Company (TREC), Energy Ministry, Iran, 2009-2011, (Executive manager).
3. Power Quality Assessment and Optimization for Taghtiran Company, Taghtiran Kashan Company (TKC) , 2014
4. Application of Electromagnetic Theory in The Analysis of Electric DC motors produced by Iskra- Autoelectric Iran, Iskra Iran company,2017
5. Design and manufacture of small scale wind turbines, 2014

### ***Research project***

1. Modification of the Grounding Systems of University of Kashan, University of Kashan,2016
2. Intelligent Building Management Solutions (IBMS) for the Department of Electrical Engineering, University of Kashan, University of Kashan,2014
3. Using Kirchhoff's radar imaging method to detect mechanical defects of transformer, 2014

### ***Executive Positions***

1. **Member of Publications and Conferences in Iranian Society of Smart Grid** , December 2011-Present
2. **University of Kashan Representative in Iranian Society of Smart Grid** , August 2012-Present
3. **Vice President for Women Branch of University of Kashan** , 2012-2013
4. **Executive Manager of Grand National Project `Design and manufacturing a 200kW gas turbine with CHP system for distributed power generation and energy storage** , 2013 - 2017
5. **Responsible for the Development of Center for Smart Grid Research and Technology Development in University of Kashan** , March 2016 -2018
6. **Member of Welfare Committee in University of Kashan** , December 2015- 2016
7. **Representative of University of Kashan in MOU with NRI**, 2015-Present
8. **Member of the Energy Research Institute of the University of Kashan**, 2015-2021
9. **Faculty Member of Power Engineering Group, Electrical and Computer Engineering Department, University of Kashan**, 2011-Present
10. **Member of the Big Data Development Working Group at University of Kashan**, 2016-018

### ***Invited Speakers***

1. Dr.Ghavameddin Nourbakhsh, academic staff, Queensland University of Technology

Title: **Aging Equipment Replacement in Power Systems, Using Reliability and Cost Considerations**

Date: January 17, 2015

2. Dr. Ghassem Mokhtari, Researcher at Australian E-Health Research Centre (AHRC)

Title: **Digital Health System in Smart Home Platform**

Date: January 18, 2015

3. Dr. Amir Hossein Ranjbar , Design and Release Engineer at FCA Fiat Chrysler Automobiles

Title: **Reliability Analysis of Modern Hybrid Micro-Grids**

Date: February 7, 2015

4. Prof. Mohammad Shahidehpour, Director of Robert W. Galvin Center for Electricity Innovation at Illinois Institute of Technology (IIT), IEEE FELLOW

Title: **Evolution of Microgrids in Smart Cities**

Date: May 13, 2015

5. Prof. Mohammad Shahidehpour, Director of Robert W. Galvin Center for Electricity Innovation at Illinois Institute of Technology (IIT), IEEE FELLOW

Title: **Evolution of Smart Grid in Large Cities**

Date: December 28, 2015

6. Dr. ing stephan volker, Head of the Technical Lighting Institute, Berlin University of technology (TU berlin)

Title: **LED Lighting Technology**

Date: February 21, 2016

7. Prof. Mohammad Shahidehpour, Director of Robert W. Galvin Center for Electricity Innovation at Illinois Institute of Technology (IIT), IEEE FELLOW

Title: **Microgrid Design and Operation in Electric Power Systems**

Date: 23-24 May 2016

8. Prof. Kaveh Niayesh, Professor at Department of Electric Power Engineering, NTNU

Title: **High Voltage Technology at NTNU: Research interests and activities**

Date: September 29, 2019

9. Prof. Mohammad Shahidehpour, Director of Robert W. Galvin Center for Electricity Innovation at Illinois Institute of Technology (IIT), IEEE FELLOW

Title: **Blockchain for Transactive Energy Management**

Date: August 9, 2021

## **Services**

### **Technical Program Committee (TPC) Member:**

- Iranian Conference on Combined Cooling, Heating & Power Generation and Hybrid Systems (CCHP2013)
- Smart Grid Conference 2014

### **Technical Reviewer:**

- Iranian Conference on Combined Cooling, Heating & Power Generation and Hybrid Systems (CCHP2013)
- Smart Grid Conference
- Electric Power Components and Systems Journal
- Journal of Energy Engineering Management
- International Power System Conference (PSC)
- IEEE Sensor Journal

## **MOUs**

I was a starter for signing MOUs between University of Kashan and following centers:

1. Illinois Institute of Technology
2. Niroo Research Institute
3. Iran Energy Efficiency Organization (IEEO-SABA)

## **Languages**

1. Persian: Native proficiency
2. English: Professional working proficiency
3. Arabic: Translation working proficiency

## **Review Activities**

### **A. Book**

1. Book Proposal ("**Willingness to pay for Low Carbon Technologies**"), ELSEVIER, September 2019
2. Book Proposal ("**Power Transformers Online Monitoring Using Electromagnetic Waves**"), ELSEVIER, October 2019

### **B. Journal Paper**



1. **A Novel Technique for Internal Fault Current Detection of Power Transformers Based on Moving Windows**, Electric Power Components and Systems, , 2013
2. **A Novel Web-based Expert System Architecture for On-line and Off-line Fault Diagnosis and Control (FDC) of Transformers**, Electric Power Components and Systems, 2013
3. **TWO-STAGE CLASSIFICATION OF POWER TRANSFORMER FAULT**, Electric Power Components and Systems, 2013
4. **Minimalist Smart Grid: Wireless Sensor Network based Micro grids for Rural Areas**, IEEE Sensors Journal, 2015
5. **Locating and optimally determining the capacity of gas-fired simultaneous production units to supply electricity and heat in an industrial town**, Research Journal of Energy Management University of Kashan, July 2012
6. **Islanded Micro-Grid Modeling and Optimization of its Operation Considering Cost of Energy not Served by an Enhanced Differential Search Algorithm**, Research Journal of Energy Management of Kashan University, 2014/02/22
7. **Generation Expansion Planning Considering Demand Side Management Programs Using ABC Algorithm**, Research Journal of Energy Management University of Kashan, 2014/05/16
8. **Optimum placement and sizing of distributed generation and energy storage systems for annual losses reduction and voltage profile improvement**, Research Journal of Energy Management University of Kashan, 2014/12/07
9. **Optimization of location and capacity of distributed generation by HBB-CBC hybrid algorithm**, Research Journal of Energy Management University of Kashan, 2016/02/10
10. **Reliability assessment of energy hub systems considering the electricity price uncertainty**, Research Journal of Energy Management University of Kashan, 2016/04/18
11. **Providing a method to determine the hysteresis bandwidth with the aim of improving THD and reducing losses Scientific**, Research Journal of Energy Management University of Kashan, July 2012
12. **Investigation of the Effects of Adding Distributed Generation Resources to the Distribution Networks on Their Protection System Performance**, Journal of Energy Management and Technology, 2021-01-15

### **C. Conference Paper**

1. **Optimization of Distributed Energy Resources to Balance Power Supply and Demand in a Smart Grid, IEEE SmartGridComm'15, 2015**
2. **Self-organized Coordination of Distributed Loads, IEEE SmartGridComm'15, 2015**
3. **Risk Curtailment Assessment in Smart Deregulated Grid with the Presence of Renewable and Storage Sources**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
4. **Investigate and Improvement of Voltage Profiles in Mashhad Distribution System with Considering Rooftop PV**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
5. **Optimal placement of energy storage and automatic switches to improve the reliability of distribution systems**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
6. **Interaction-based home energy management in regulation market considering uncertainties**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
7. **Designing a smart LED street lighting system for a smart city with a web-based management system**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
8. **Locating and determining the optimal capacity of CHPs in the distribution network and examining its positive economic effects**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
9. **Proposing an Optimal Techno-Economic Scheme for a Hybrid Floating Photovoltaic – Hydro Power Plant**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
10. **Micro grid energy management of a smart home in the presence of micro CCHP**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
11. **Probability assessment of voltage instability in smart grids using the concept of cross entropy**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019
12. **Improving the resiliency of the distribution network through optimal key placement by the gray wolf algorithm**, The 10th Conference of Smart Energy Networks University of Kashan, 16 December 2019

#### **D. Master Thesis**

1. Saber Falahati, "**A New Control Method for Parallel Connected VSIs for Load Sharing in a Micro Grid Including Linear and Nonlinear Loads**", February 2012, University of Kashan Department of Electrical and Computer Engineering
2. M. Hossein Karimi, "**Optimal Reconfiguration of Unbalanced Distribution Systems with Dispersed Generation Using Evolutionary Algorithms**", April 2012, University of Kashan Department of Electrical and Computer Engineering
3. Siamak Mansouri, "**Robust Controller Design in Solid Oxide Fuel Cell (SOFC) and Gas Turbine Hybrid System**", July 2012, University of Kashan Department of Electrical and Computer Engineering
4. Alireza Dehghani Arani, "**Optimal Placement of Distributed Generation in Unbalanced Distribution Networks Using Intelligent Algorithms**", September 2012, University of Kashan Department of Electrical and Computer Engineering
5. Mohammad Nematolah Pourvali, "**Power Management and Power Flow Control in a Utility Connected Micro grid**", December 2012, University of Kashan Department of Electrical and Computer Engineering
6. Hesamedin Hosseini, "**Standing Phase Angle Reduction During Power System Restoration with Intelligent Algorithms**", January 2013, University of Kashan Department of Electrical and Computer Engineering
7. Seyed Masoud Motiei Rad, "**Conceptual Design Of Modeling And Simulation Of Magnetic Energy Storage Superconducting System**", 2013 February, University of Kashan Department of Electrical and Computer Engineering
8. Mojtaba Molavi, "**New Protection Methods for Micro grid With Distributed Generation Sources**", Oct 2013, University of Kashan Department of Electrical and Computer Engineering
9. Gholam Hossein Namazifard, "**Design Of Intelligent Control System In Micro-Grids With Distributed Production Resources**", February 2012, University of Kashan Department of Electrical and Computer Engineering
10. Seyyed Ali Seyyedi Saadati, "**Optimum Design of High-Speed Permanent Magnet Synchronous Motor**", February 2014, University of Kashan Department of Electrical and Computer Engineering
11. Omid mohammadpour, "**Design of Sensor Less Current Source Inverter (CSI) Fed BLDC Motor Drive with One Cycle Control Technique**", September 2014, University of Kashan Department of Electrical and Computer Engineering
12. Navid Kariminejad, "**Frequency Control of Micro Grids in Different Working Modes**", November 2014, University of Kashan Department of Electrical and Computer Engineering

13. Peyman Rezaei Shahson, "**Active and Reactive Power Control of Permanent Magnet Synchronous Generators in Wind Power Plants**", February 2014, University of Kashan Department of Electrical and Computer Engineering
14. Mustafa Nazarbeigi, "**Technical and Economic Survey and Placement of Cogeneration Power Plants (CHP/CCHP) Based on the Amount of Electric Power and Heat Rate Required in the Local Consumption Network**", Spring 2015, University of Kashan Department of Electrical and Computer Engineering
15. Reza Ghasemi, "**Intelligent Frequency Control in AC Micro Grid Using Load Response and Based On Evolutionary Algorithms**", February 2015, University of Kashan Department of Electrical and Computer Engineering
16. Seyed Hosein Helli, "**Voltage Quality Enhancement In Micro Grids Using Hierarchical Control Method**", October 2014, University of Kashan Department of Electrical and Computer Engineering
17. Mohsen Mohammadpour, "**The Voltage Profile Improvement of Distribution Systems Under High Photovoltaic Penetration Using Transformers Tap Changer and Battery Energy Storage Systems**", December 2016, University of Kashan Department of Electrical and Computer Engineering
18. Mohammad Reza Haftani, "**Determining the Start-Up Sequence of Power Plants During Power Grid Reconnection, Taking Into Account the Uncertainty of Power Plant Parameters**", September 2016, University of Kashan Department of Electrical and Computer Engineering
19. KAMIL AL-DIHAYMAWEE, "**Optimal Design of DG Sources for an Island Grid Using HOMER Software**", 2017, University of Kashan Department of Electrical and Computer Engineering
20. Saber Breiri, "**Fuzzy Control Design of the Magnetic Suspension System in Order to Reduce the Effects on the Passenger of the Vehicle**", March 2013, The Feiz University of Technology, Faculty of Engineering, Department of Electrical Engineering
21. Masoud Yousefian, "**Controller Design for Wind Power Plant With Permanent Magnet Synchronous Generator**", January 2016, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
22. Morteza Zaheri Abde Vand, "**Scalar Control of a Single-Phase Induction Motor Connected to a Photovoltaic System Through an Impedance Source Inverter**", February 2014, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering

23. Seyed Habibullah Taherian, "**Optimum Design of Linear Induction Motor Using Genetic Algorithm and Finite Element Method for Application in Electric Train**", November 2014, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
24. Mohammad Hossein Karim, "**Power Sharing of Distributed Generation Resources According to Control Mode and Micro Grid Structure**", September 2014, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
25. Mohammad Zanganeh kamali, "**Optimal PMU Placement for Enhancing Power System Reliability**", January 2017, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
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27. Mirhamed Boyaghchian, "**Micro Turbine Generator Control By Direct Power Control Method**", September 2015, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
28. Hadi Golestanian, "**Voltage Control of Wind Turbine With Double-Fed Induction Generator**", March 2015, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
29. Behzad Habibzadeh Khobi, "**Design and Construction of a Three-Level Inverter Using the SH-PWM Frequency Method to Eliminate Harmonics With the Possibility of Detecting a Short Circuit Fault for Use In Electric Vehicles**", September 2013, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
30. Massoud Ebdan, "**Assessment and Improvement of Wind Power Plant Performance Using FACTS Devices**", March 2012, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
31. Reza Mohammadi, "**Rearrangement of the Distribution Network In the Presence of Distributed Generation Sources in Order to Reduce Losses and Improve the Voltage Level Using the NBPSO Algorithm**", September 2013, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
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33. Mehdi Zulfaqari, "**Optimal Load Sharing Between Distributed Generation Sources In Electrical Distribution Networks**", October 2012, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
34. Saber Jamshidifar, "**Sensor Less Control Of BLDC Motor By Direct Power Control Method**", July 2013, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
35. Mina Shoferpour, "**Optimum Control Design For Polymer Fuel Cell Systems**", November 2012, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
36. Mrs. Nima Haratian, "**Active and Reactive Power Deficit Control of a Wind Turbine With Double-Fed Generator**", December 2012, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
37. Ahmad Bina, "**Direct Power Control of Permanent Magnet Synchronous Machine By Linearization Method With Feedback**", February 2012, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
38. Hossein Rahimi Khoj, "**Direct Control of Induction Motor Power Using Sensor Less Method Based on Neural Network**", February 2012, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
39. Bahram Mahmoudi, "**Optimization Of Repair Planning Of 400 KV Mahalat Power Station**", September 2013, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
40. Vahid Zamanpour, "**Vector Control of Synchronous Permanent Magnet Motor Using Fuzzy PID Method**", February 2012, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
41. Mohammad Daryanavardan, "**Optimum Placement of Distributed Generation Sources In Distribution Networks In Order to Improve Power Quality Indicators**", October 2013, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
42. Samaneh Sadoughi, "**Sensor Less Control Of Permanent Magnet Synchronous Motor With Non-Ideal Counter-Motive Voltage Based On Sliding Mode Observer**", February 2015, The Feiz University of Technology Faculty of Engineering Department of Electrical Engineering
43. Abid al-Hamzeh, "**Design and Simulation of Photovoltaic – Powered Evaporation Air cooler using Brushless DC Motor Drive**", March 2017, University of Kashan, Pardis Faculty

44. Abbas Al-Holo, **"Feasibility Study of Solar – Wind Hybrid Power System for Rural Electrification at Iraq(Najaf)"** ,July 2017, University of Kashan, Pardis Faculty
45. Adi Al-Jabery, **"Design and Simulation of Small Scale Two Stages PV Inverter Connected To the Main Grid"** ,May 2017, University of Kashan, Pardis Faculty
46. Farid Al-Khafaji, **"Design and Analysis of Photovoltaic Water-Pump System"** ,July 2017, University of Kashan, Pardis Faculty
47. Ali Havaei Arani, **"Energy Saving of Induction Motors for Industrial Pumps Using Electrical Drives"** , September 2019, University of Kashan, Faculty of Electrical & Computer Engineering, Kashan Department of energy
48. Mahdiye Monemi Bidgoli, **"Planning the Participation Of Power Plant Units With Security Restriction Considering the Limitation of the Gas Network and Storage Systems"** , May 2019, University of Kashan, Pardis Faculty
49. Jamal Faraji, **"Optimum Utilization of Energy Storage System Considering Uncertainty and Load Forecasting in Consumer's Energy Market"** , August 2019, University of Kashan, Faculty of Electrical & Computer Engineering, Kashan Department of energy
50. Mehran Memari, **"Reliability Assessment of Smart Distribution Networks Based on Cyber-Power Interdependencies"** , March 2021, University of Kashan, Faculty of Electrical and Computer Engineering, Department of Electrical Engineering
51. Alireza Tavakoli, **"Optimal Bidding Strategy for an Energy Hub in Electricity Market Considering Heat and Natural Gas Markets in the Presence of CHP and Biomass Units"** , September 2021, University of Kashan, Faculty of Electrical and Computer Engineering, Department of Electrical Engineering
52. Amir Hossein Ataee-Kachoei, **"Optimal Protection Coordination of Micro Grids Using Dual Settings of Tripping Characteristic of Overcurrent Relays"** , February 2022, University of Kashan, Faculty of Electrical and Computer Engineering, Department of Electrical Engineering
53. Mehrdad Aslani, **"Reliability Evaluation of Smart Micro-Grids Based on Uncertainties of Cyber System and Renewable Distributed Generations"** , January 2022, University of Kashan, Faculty of Electrical and Computer Engineering, Department of Electrical Engineering
54. Mehdi Aghaei-Fatideh, **"Optimal Protection Coordination of Smart Grids Using Dual Setting Directional Overcurrent Relays and Communication Systems"** , February 2022, University of Kashan, School of Mechanical Engineering, Energy Research Institute

55. Ahmadreza Jamali Abnavi, **“Thermal Modeling of High Voltage Cables Considering Special Operating Conditions: A Case Study of the Cable System of Mobarake Steel Complex in Isfahan”**, August 2020, University of Kashan, Faculty of Electrical and Computer Engineering, Department of Electrical Engineering
56. Ali Gozaranoi, **“Rural Electrical Energy System’s Optimization in Islanded Mode Using Distributed Generation Unite and Storage Systems”**, February 2022, University of Kashan, School of Mechanical Engineering, Energy Research Institute
57. Ghadir Nezamloo, **“Design and simulation of the pulse generator using the combination of voltage and current sources in order to reduce pulse rise time”**, July 2023, University of Kashan, Faculty of Electrical and Computer Engineering Department of Electrical Engineering-Power
58. Mehdi Mashayekhi, **“Resilience Improvement of Energy Systems in the Presence of Sensitive Loads and Cryptocurrency Mining Farms”**, September 2023, University of Kashan Energy, Water and Environment Research Institute Energy System Engineering Group
59. Behnam jedi devlagh, **“Influence of transformer winding connections on its frequency response”**, September 2023, University of Tehran Faculty of Engineering School of Electrical and Computer Engineering
60. Ali Tangestani, **“Optimal Adaptive Protection of Active Distribution Networks Based on Independent Changes in Setting Groups of Directional Overcurrent Relays”**, February 2024, University of Kashan, Faculty of Electrical and Computer Engineering, Department of Electrical Engineering-Power

#### **E. Phd Thesis**

1. Sahba Sadat Rajamand, **“Balanced Active and Reactive Power Sharing in Transient and Steady-State Mode in Addition to LVRT Protection by Using Control of Inverter-Based DGs in Micro grid”**, January 2017, University of Kashan Department of Electrical and Computer Engineering
2. Mohammad Kebriaei, **“Design and Implementation of Modular Hybrid Semiconductor Pulse Power Generator With the Ability to Change Pulse Width and Frequency”**, February 2016, University of Kashan Department of Electrical and Computer Engineering
3. Hamid Reza Zafarani, **“Planning of Multi-Carrier Energy Systems Considering Electric Vehicles And Simultaneous Electricity and Heat Production Units”**, February 2018, University of Kashan, Pardis Faculty
4. Fereshteh Moghateli, **“Planning and Design of Smart Multi-Micro Grid Systems in Active Distribution Network”**, September 2020, University of Kashan, Faculty of



Electrical and Computer Engineering, Department of Engineering, Ph.D .  
Dissertation in Electrical Engineering

5. Vahid Sour, "**Control of Buck-Type Dynamic Capacitor Using Model Predictive Control Method for Dynamic Var and Harmonic Compensation**", March 2021, University of Kashan, Pardis of Electrical and Computer Engineering
6. Nader Tarashandeh, "**Designing a Security-Based Peer to Peer Market Mechanism for Energy and Flexible Reserve Exchange**", September 2024, University of Kashan, Faculty of Electrical and Computer Engineering

## **F. Project Proposal**

1. **Preparation of Intelligent Software for Troubleshooting Power Transformers Based on FRA Results and Multiphysics Modeling**, Bakhtar Regional Electricity Company, February 2017

## **References**

1. *Dr. Mohammad Shahidehpour* ([ms@iit.edu](mailto:ms@iit.edu))
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5. *Dr. Said Golabi* ([golabi-s@kashanu.ac.ir](mailto:golabi-s@kashanu.ac.ir))
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## **STATEMENT OF TEACHING PHILOSOPHY**

For me, learning only becomes meaningful through continuous education of myself. In my opinion, the speed of science production is much higher than that we can teach current students only with what we have learned before. Therefore, most of my time in each semester is spent learning new material and I try to use it in my teaching slides and handouts.

In most courses, whether in the undergraduate or graduate level, students get part of the scores by researching a specific topic and presenting it in a video. These videos will be placed on my YouTube channel for the use of those who are interested so that students can have more motivation by seeing the results of their efforts are not wasted. At the doctoral level, more than half of the scores are assigned to the projects. The most important thing that I am trying to convey to students is independence in learning. I try to convey to the students the sense that they must remain seekers of knowledge until the end of their lives to be successful.

It is very important for me to define team projects for students during the semester for each course in theory and practice to strengthen the spirit of teamwork among students.

Students can easily communicate with me on social networks at any hour of the day and night, and this continuous communication is constructive for advancing projects during the semester and solving their problems. In other words, they can easily convey their opinions to me. Apart from that, during the semester, I will also conduct some anonymous polls so that I can get feedback from their opinions.

The eagerness to learn makes me choose new subjects to teach. Even courses that I had not taken during my studies. In graduate education courses, inventing new courses by combining two subjects from two different disciplines to help interdisciplinary research is one of my interests.

In my opinion, education is a two-way activity, and especially at the graduate level, I have learned a lot from students who have experience working in industries or working with software.

In master's and doctoral courses, I divide the course into two theoretical and research parts and I try to define a project for each student independent of other students but in relation to each other so that each project is a part of a whole. I try that at the end of the lesson, the student's fear of finding a solution to the problems that are on the frontiers of knowledge will disappear.