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# Mohammad Pazoki

Assistant Professor,
Electrical Engineering Department, School of Engineering, Damghan University, Damghan, Iran

DATE OF BIRTH: **21 September 1984**
PLACE OF BIRTH: **Firouzkooh/Tehran Province/Iran**
NATIONALITY: **Iranian**
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## EDUCATION

| | | | | |
|---|---|---|---|---|
| **Ph.D.** | Semnan University Semnan, Iran | 2010-2014 | Power Engineering | 19.13/20 |
| **Visiting Scholar** | The University of Auckland, Auckland, New Zealand | 2013-2014 | Power Engineering | - |
| **M.Sc.** | Semnan University Semnan, Iran | 2008-2010 | Power Engineering | 18.68/20 |
| **B.Sc.** | Semnan University Semnan, Iran | 2003-2008 | Power Engineering | 16.74/20 |
| **Diploma** | Dr. Beheshti High School, Firouzkooh, Iran | 1998-2002 | Mathematics | 18.62/20 |

## EDUCATIONAL EXPERIENCES

- **Ph.D. Thesis:** "Improvement of distance protection operation of transmission line equipped with UPFC using pattern recognition method".

*Supervisor:* Prof. Zahra Moravej (Professor of Semnan University, Semnan, Iran)
*Advisor:* Prof. Mojtaba Khederzadeh (Associate Professor of Power & Water University of Technology (PWUT), Tehran, Iran)

- **Visiting Ph.D. Research Student:**
  Concentration: "Real-time simulation of FACTS device and distance relay".
  Electrical Engineering Department, The University of Auckland, Auckland, New Zealand.

*Advisor*: Prof. Nirmal K. C. Nair

- **M. Sc. Thesis:** "Fault classification and fault section identification of compensated transmission lines using an intelligent method".

*Supervisor:* Prof. Zahra Moravej (Professor of Semnan University, Semnan, Iran)

- **B. Sc. Thesis:** "Distance protection implementation based on artificial intelligence".

*Supervisor:* Prof. Zahra Moravej (Professor of Semnan University, Semnan, Iran)

**Last Updated: 7 January 2021**

## PROFESSIONAL EXPERIENCES

- 2019-Present: ***Dean of School of Engineering,*** Damghan University
- 2018-2019: ***Director of University-Industry Relations Office***, Damghan University
- 2015-Present: ***Assistant Professor***, School of Engineering, Damghan University

## RESEARCH INTERESTS

- Power System Protection
- FACTS
- Pattern Recognition Application to Power System
- Power Quality

## JOURNAL PAPERES - ISI

1. B. K. Chaitanya, A. Yadav, and **M. Pazoki**, "An Advanced Signal Decomposition Technique for Islanding Detection in DG System," *IEEE Systems Journal*, 2020.
2. B. K. Chaitanya, A. Yadav, and **M. Pazoki**, "Reliable Islanding Detection Scheme for Distributed Generation based on Pattern-Recognition," *IEEE Transactions on Industrial Informatics*, 2020.
3. P. K. Mishra, A. Yadav, and **M. Pazoki**, "Resilience-oriented protection scheme for TCSC-compensated line," *International Journal of Electrical Power & Energy Systems*, vol. 121, pp. 106103, 2020.
4. B. K. Chaitanya, A. Yadav, and **M. Pazoki**, "An Intelligent Detection of High-Impedance Faults for Distribution Lines Integrated with Distributed Generators," *IEEE Systems Journal*, 2019.
5. Z. Moravej, H. Rasooli, and **M. Pazoki**, "A new protection scheme for loss of excitation detection in presence of FACTS devices," *International Journal of Electrical Power & Energy Systems*, vol. 109, pp. 110-121, 2019.
6. B. K. Chaitanya, A. Yadav, and **M. Pazoki**, "An improved differential protection scheme for micro-grid using time-frequency transform," *International Journal of Electrical Power & Energy Systems*, vol. 111, pp. 132-143, 2019.
7. P. K. Mishra, A. Yadav, **M. Pazoki**, "FDOST-Based Fault Classification Scheme for Fixed Series Compensated Transmission System", *IEEE Systems Journal*, vol.13, pp. 3316 – 3325, 2019.
8. **M. Pazoki**, "A New DC-Offset Removal Method for Distance Relaying Application Using Intrinsic Time-Scale Decomposition", *IEEE Transactions on Power Delivery*, vol. 33, pp. 971-980, 2018.
9. **M. Pazoki**, "A New Fault Classifier in Transmission Lines Using Intrinsic Time Decomposition", *IEEE Transactions on Industrial Informatics*, vol. 14, pp. 619-628, 2018.
10. P. K. Mishra, A. Yadav, **M. Pazoki**, "A Novel Fault Classification Scheme for Series Capacitor Compensated Transmission Line Based on Bagged Tree Ensemble Classifier", *IEEE Access*, vol. 6, pp. 27373-27382, 2018.
11. B. Kumar, A. Yadav, **M Pazoki**, "Impedance differential plane for fault detection and faulty phase identification of FACTS compensated transmission line", *International Transactions on Electrical Energy Systems*, vol. 29, e2804, 2019.
12. B. K. Chaitanya, A. Yadav, **M. Pazoki**, "Wide area monitoring and protection of microgrid with DGs using modular artificial neural networks", *Neural Computing and Applications*, 2018, (Early Access).
13. Z. Moravej, M. Movahhedneya, **M. Pazoki**, "Gabor transform-based fault location method for multi-terminal transmission lines", *Measurement*, vol. 125, pp. 667-679, 2018.
14. Z. Moravej, O. Hajhossani, **M. Pazoki**, "Fault location in distribution systems with DG based on similarity of fault impedance", *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 25, pp. 3854-3867, 2017.

15. Z. Moravej, **M. Pazoki**, M. Khederzadeh, "New Smart Fault Locator in Compensated Line with UPFC", *International Journal of Electrical Power and Energy Systems*, vol. 92, pp. 125-135, 2017.
16. **M. Pazoki**, Z. Moravej, M. Khederzadeh, and N.K.C. Nair, "Effect of UPFC on protection of transmission lines with infeed current", *International Transactions on Electrical Energy Systems*, vol. 26, pp. 2385–2401, 2016.
17. A. A. Abdoos, Z. Moravej, **M. Pazoki**, "A hybrid method based on time frequency analysis and artificial intelligence for classification of power quality events", *Journal of Intelligent & Fuzzy Systems: Applications in Engineering and Technology*, vol. 28, pp. 1183-1193, 2015.
18. Z. Moravej, **M. Pazoki**, M. Khederzadeh, "New Pattern-Recognition Method for Fault Analysis in Transmission Line With UPFC", *IEEE Transaction on Power Delivery*, vol. 30, pp. 1231 - 1242, 2015.
19. Z. Moravej, **M. Pazoki**, M. Khederzadeh, "Impact of UPFC on Power Swing Characteristic and Distance Relay Behavior", *IEEE Transaction on Power Delivery*, vol. 29, pp. 261-268, 2014.
20. Z. Moravej, J.D. Ashkezari, **M. Pazoki**, "An effective combined method for symmetrical faults identification during power swing", *International Journal of Electrical Power and Energy Systems*, vol. 64, pp. 24–34, 2015.
21. Z. Moravej, M. Khederzadeh, **M. Pazoki**, "New Combined Method for Fault Detection, Classification and Location in Series Compensated Transmission Line", *Electric Power Components and Systems*, vol. 40, pp. 1050-1071, 2012.
22. Z. Moravej, **M. Pazoki**, and A.A. Abdoos, "A New Approach for Fault Classification and Section Detection in Compensated Transmission Line with TCSC", *European Transactions on Electrical Power*, vol. 21, pp. 997–1014, 2011.
23. Z. Moravej, **M. Pazoki**, M. Niasati, and A.A. Abdoos, "A Hybrid Intelligence Approach for Power Quality Disturbances Detection and Classification", *European Transactions on Electrical Power*, 2012.
24. Z. Moravej, **M. Pazoki**, and A.A. Abdoos, "Wavelet Transform and Multi-class Relevance Vector Machines Based Recognition and Classification of Power Quality Disturbances", *European Transactions on Electrical Power*, vol. 21, pp. 212–222, 2011.
25. Z. Moravej, A.A. Abdoos, and **M. Pazoki**, "Detection and Classification of Power Quality Disturbances Using Wavelet Transform and Support Vector Machines", *Electric Power Components and Systems*, vol. 38, pp. 182–196, 2010.
26. Z. Moravej, A.A. Abdoos, and **M. Pazoki**, "New Combined S-transform and Logistic Model Tree Technique for Recognition and Classification of Power Quality Disturbances", *Electric Power Components and Systems*, vol. 39, pp. 80–98, 2011.
27. Z. Moravej, **M. Pazoki**, "Application of a New Combined Technique to Power Quality Events Classification", *International Review of Electrical Engineering (I.R.E.E.)*, vol. 7, pp. 4172-4182, 2012.

## JOURNAL PAPERES

1. A. Yadav, V. Ashok, and **M. Pazoki**. "Protection scheme for hybrid transmission system using fuzzy inference system and microcontroller," *Evolutionary Intelligence*, pp. 1-15, 2020.
2. Z. Moravej, H. Rasooli, and **M. Pazoki**, "Analysis of Loss of Excitation Protection Schemes of Synchronous Generators in A Compensated Transmission Line with UPFC," *International Journal on Electrical Engineering & Informatics*, vol. 11, 2019.
3. **M. Pazoki**, "Efficient Method for Fault Classification in Transmission Line Using Kernel Naive Bayes Classifier" , *Journal of Modeling in Engineering*, vol. 16, pp. 119-129, 2018 (In Persian).
4. M. Jazaeri, M. Gholamzadeh, and **M. Pazoki**, "Analysis of Over/Under-Reaching of Distance Relay on Transmission Line in Presence of UPFC", *Trends in Applied Science Research*, vol.6, pp. 580-594, 2011.
5. M. Niasati, **M. Pazoki**, M. Gholamzadeh, "TRV Evaluation in Advanced Series Compensated System", *International Journal of Computer Applications*, vol. 34, No.7, November 2011.
6. Z. Moravej, A.A. Abdoos, **M. Pazoki**, "An Intelligent Method for Detection and Classification of Power quality Events" , *Journal of Modeling in Engineering*, Vol. 9, No. 27, pp. 23-37, 2012. (In Persian)

**Last Updated: 7 January 2021**

## PUBLICATIONS & CONFERENCE PRESENTATIONS

1. A. Nag, A. Yadav, A. Y. Abdelaziz, and **M. Pazoki**, "Fault Location in Underground Cable System Using optimization Technique," *In 2020 First International Conference on Power, Control and Computing Technologies (ICPC2T)*, pp. 261-266. IEEE, 2020.
2. **M. Pazoki** and M. Rezaei, "Investigation and Suggestion a Sub-transmission Substation Protection Scheme Based on the IEC 61850," *11th international conference on protection and automation of power system, Iran University of Science and Technology, Tehran, Iran*, January 17-18, 2017. (In Persian)
3. **M. Pazoki**, "Fault Classification in Series Compensated Transmission Line Using Sequence Components," *10th Power Systems Protection and Control Conference, University of Tehran, Tehran, Iran*, January 19-20, 2016.
4. **M. Pazoki**, "Fault Classification in Single-Circuit Transmission Line Using Logistic Model Tree," *10th Power Systems Protection and Control Conference, University of Tehran, Tehran, Iran*, January 19-20, 2016.
5. Z. Moravej, M. Movahhedneya, G. Radman, and **M. Pazoki**. "Comparison of signal processing methods for traveling-waves fault location technique in three-terminal transmission lines." *In Electro/Information Technology (EIT), 2015 IEEE International Conference on*, pp. 177-182. IEEE, 2015.
6. Z. Moravej, M. Movahhedneya, G. Radman, and **M. Pazoki**. "Effective fault location technique in three-terminal transmission line using Hilbert and discrete wavelet transform." *In Electro/Information Technology (EIT), 2015 IEEE International Conference on*, pp. 170-176. IEEE, 2015.
7. **M. Pazoki**, Z. Moravej, M. Khederzadeh, N. C. Nair, "Distance Protection of Transmission Line with Infeed Based on Real-Time Simulator", *Australasian University Power Engineering Conference (AUPEC 2014), Perth, Australia*, 28th September – 1st October, 2014.
8. Z. Moravej, **M. Pazoki**, "RVMs Based Method for Fault Analysis in Advanced Series Compensated Line", *6th Power Systems Protection and Control Conference, Sharif University of Technology, Tehran, Iran*, January 3-4, 2012.
9. Z. Moravej, **M. Pazoki**, "A Pattern Recognition System for Fault Analysis in TCSC Based Transmission Line", *26th International Power System Conference, Tehran, Iran*, 2011.
10. Z. Moravej, A.A. Abdoos, and **M. Pazoki**, "Detection and Classification of Power Quality Events Using S-Transform and Support Vector Machines", *24th International Power System Conference, Tehran, Iran*, 2008. (In Persian)
11. A. A. Foroud, **M. Pazoki**, and M. Gholamzadeh, "Transient Stability Prediction Using Combined PSO and SVMs", 24th International Power System Conference, Tehran, Iran, 2008. (In Persian)

## BOOK CHAPTER

- "Power Quality – Monitoring, Analysis and Enhancement", Published by InTech, Janeza Trdine 9, 51000 Rijeka, Croatia.
  Edited by Ahmed F. Zobaa
  (**Chapter 5:** Application of Signal Processing in Power Quality Monitoring)
  Z. Moravej, **M. Pazoki**, A.A. Abdoos,
  *ISBN 978-953-307-330-9*
- "Decision Making Applications in Modern Power Systems", Published by Elsevier, Published Date: 1 October 2019.
  Edited by**:** Shady H.E. Abdel Aleem, Almoataz Youssef Abdelaziz, Ahmed F. Zobaa, Ramesh Bansal
  (**Chapter 17:** Pattern-Recognition Methods for Decision Making in Protection of Transmission Lines)
  **M. Pazoki**, A. Yadav, A. Y. Abdelaziz

*ISBN: 9780128164457*

- "A comprehensive review of islanding detection methods", Published by Elsevier, Published Date: 16 November 2020.
  Edited by**:** Ahmed F. Zobaa and Shady H.E. Abdel Aleem
  (**Chapter 8:** A comprehensive review of islanding detection methods**)**
  B. K. Chaitanya, A. Yadav, **M. Pazoki** and A. Y. Abdelaziz
  *ISBN: 978-0-12-820491-7*

## RESEARCH PROJECTS

- "*Power Quality Monitoring*", Semnan University, Semnan, Iran, 2010. (In Persian)
- "*Analysis and Implementation of DC Offset Filter in Numerical Relays*", VEBKO Company, Iran, 2020.

## EDUCATIONAL HONORS & AWARDS

- 1st ranked for M. Sc. Degree with GPA 18.68 out of 20.
- 1st ranked for Ph.D. Degree with GPA 19.13 out of 20.
- Scholarship from Ministry of Science, Research and Technology of Iran in Ph.D.
- Visiting Research Student Scholarship from the University of Auckland, New Zealand, 2013.

## TRAINING COURSES

- Certificated by **Sharif Center of Technical Applied Education (Tehran, Iran)** in *Power System Protection* for **112 hours** and **Scored 95 out of 100** included following subjects:

- Relay Principles
- Protection Basics (Short Circuits, Earth Fault, ANSI Code)
- CT and PT Sizing
- Relay Coordination
- ETAP Software (Star Systems)
- Motor Protection
- Transformer Protection
- Generator Protection
- HV Substation & Line Protection
- Siemens Relay Data Entry by DIGSI
- ABB Relay Data Entry by CAP
- Schneider Relay Data Entry by SFT
- Micom Relay Data Entry by S1
- Relay Test by OMICRON

**Last Updated: 7 January 2021**

## TEACHING & JOB EXPERIENCES

*Teaching:*

- "**DC Electrical Machines**", Electrical & Computer Engineering Faculty, Semnan University, Semnan, Iran.
- "**Advanced Engineering Mathematics**", Electrical & Computer Engineering Faculty, Semnan University, Semnan, Iran.
- "**Electrical Basics**", Electrical & Computer Engineering Faculty, Semnan University, Semnan, Iran.
- "**DC Electrical Machines Laboratory**", **Electrical** & Computer Engineering Faculty, Semnan University, Semnan, Iran.
- "**Electrical Basics Laboratory**", Electrical & Computer Engineering Faculty, Semnan University, Semnan, Iran.

*Job:*

- Cooperation in group of "Rastafan Ertebat" companies, "Rastafan Niroo" company, Tehran.

## TECHNICAL REVIEWER

### IEEE

- IEEE Transactions on Power Delivery
- IEEE Systems Journal
- IEEE Transactions on Smart Grid
- IEEE Access

### IET

- IET Generation, Transmission & Distribution

### Wiley

- International Transactions on Electrical Energy Systems

### Taylor & Francis

- Electric Power Components and Systems

### Elsevier

- International Journal of Electrical Power & Energy Systems
- Measurement

### Springer

- Iranian Journal of Science and Technology, Transactions of Electrical Engineering

### Iranian Journals

- Journal of Modeling in Engineering, Semnan University
- Journal of Electrical Engineering, Tabriz University
- Iranian Journal of Electrical and Electronic Engineering (IJEEE), Iran University of Science and Technology

**Last Updated: 7 January 2021**

## SKILLS

### Technical Softwares:

- PSCAD/EMTDC
- MATLAB & SIMULINK
- Rapidminer (Data Mining software)
- RT-Lab (real time laboratory)

### Technical Hardware:

- Real Time Digital Simulator (Opal-RT)

### Language Skills:

- English (Advanced)
- Persian (Native)

## REFERENCES

- Available upon request.