



Name & Surname: Mehdi Monadi

Date of Birth: 1978



Address, Suburb, State, Postcode: Shahid Chamran University, Golestan Ave. Ahvaz, Khuzestan, Iran



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PROFESSIONAL PROFILE:

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

EDUCATION BACKGROUND:

Ph.D.: Electrical Engineering (2016).

Universitat Politècnica de Catalunya (UPC)-BarcelonaTech, Barcelona, Spain, 2013-2016 (including sabbatical at KTH Royal Institute of Technology, Stockholm, Sweden); graduated with “Excellent Cum Laude” degree.

Thesis Title: “Protection and Fault Management in Active Distribution Systems”

Supervisors: Prof. Pedro Rodriguez, Dr. Jose Ignacio Candela.

M.Sc.: Electrical Engineering.

Shahrood University of Technology, Shahrood, Iran, 2002-2004

Dissertation Title: “Coordination of Power System Stabilizers in Multi-Machine Power System Using Adaptive Fuzzy.”

Supervisors: Dr. A.A. Gharaveisi, Dr. A. Darabi

B.Sc., Electrical Engineering.

Shahid Chamran University of Ahvaz, Iran, 1996-2000

Project: “Design and Implementation of an Accurate Fault Locator for EHV Transmission Lines Based on Artificial Neural Networks.”

Supervisor: Prof. M. Joorabian.

TEACHING AND TRAINING EXPERIENCE:

2003, and 2016-Now: at Shahid Chamran University, Ahvaz:

- Design of Power Converters ((M.Sc course)
- Electrical Drives (M.Sc course)
- Smart Grids (M.Sc course)
- Electrical installation
- Special electrical machines
- Electrical Machines (III)
- Power electronics (for B.Sc. students)
- Technical English for electrical Eng. students
- Electrical machine lab
- Fundamentals of electrical engineering

HONOURS AND AWARDS:

- First ranked with GPA 19.18 out of 20 among 8 Electrical Engineering M.Sc. students.
- Active scholar certificate by Khuzestan Regional Electric Company (2005).

INTERESTS AND RESEACH FIELDS:

- Modern Electrical Installations
- Smart Grids
- Power System Protection
- DC Networks
- Power Electronics

RESEARCH ACTIVITIES:

PUBLICATIONS:

Journal Articles

1. H. Farzin, M. Monadi, M.Fotuhi-Firuzabad, M. Savaghebi, 'A reliability model for overcurrent relays considering harmonic-related malfunctions', International Journal of Electrical Power & Energy Systems, 2021
2. H. Farzin, M. Monadi, 'Reliability Enhancement of Active Distribution Grids via Emergency V2G Programs: An Analytical Cost/Worth Evaluation Framework', Scientia Iranica, 2019
3. M. Monadi, H. Hooshyar, L. Vanfretti, F. Mahmood, J.I. Candela, P. Rodriguez, "Measurement-based Network Clustering for Active Distribution Systems", IEEE Transactions on Smart Grid, 2019
4. M. Monadi, H. Hooshyar, L. Vanfretti, "Design and real-time implementation of a PMU-based adaptive auto-reclosing scheme for distribution networks", International Journal of Electrical Power & Energy Systems, Elsevier, Vol. 105, Pages 37-45, 2019
5. H. Ghorbani, M. Monadi, A. Ghorbani, J.I. Candela, " Application of new POSICAST control method to synchronous generator excitation system", Journal of Power Technologies, Vol. 98, no, 4, Pages 336-344, 2018
6. M. Monadi, C. Gavriluta, J.I. A. Luna, Candela, P.Rodriguez, "Centralized Protection Strategy for Medium Voltage DC Microgrids", IEEE Transactions on Power Delivery, Vol. 32, no. 1, Pages 430-440, 2017
7. M. Monadi, C. Koch-Ciobotaru, J.I. A. Luna, Candela, P.Rodriguez, "Multi-Terminal MVDC Grids Fault Location and Isolation", IET Generation, Transmission & Distribution, Vol. 10, no. 14, Pages 3517-3528, 2016.
8. M. Monadi, M.A. Zamani, C. Koch-Ciobotaru, J.I. Candela, P.Rodriguez, "A Communication-Assisted Protection Scheme for Direct-current Distribution Networks", Energy, Elsevier, Vol. 109, Pages 578-591, 2016
9. M. Monadi, M.A. Zamani, A. Luna, J.I. Candela, P.Rodriguez, "Protection of AC and DC distribution systems Embedding distributed energy resources: A comparative review and analysis", Renewable & Sustainable Energy Reviews, Elsevier, Vol. 51, Pages 1578-1593. 2015

10. S.Gh. Seifossadat, A. Shoulaie, M. Monadi, "A Linearized Small- Signal Model of an HVDC Converter with Filter Circuits in mixed Time-Frequency domain", IEEE Transactions on Power Delivery, Vol. 23, Issue 1, 2008
11. S.Gh. Seifossadat, M. Razzaz, M. Moghadasian, M. Monadi, "Harmonic estimation in power systems using adaptive perceptrons based on a genetic algorithm", WSEAS Transactions on Power Systems, 2008
12. A.A. Gharaveisi, A. Darabi, M. Monadi, A. Khajehzadeh, M. Rashidinejad, "Performance Evaluation of an ANFIS Based Power System Stabilizer Applied in Multi Machine Systems ", WSEAS Transaction on Circuits and Systems, Issue 11, Volume 4, November 2005, Pp,1731-1736
13. M. Heidari, R. Kianinezhad, S.Gh. Seifossadat, M. Monadi, D. Mirabbasi, "Effects of Distribution Network Unbalance Voltage types with Identical Unbalance Factor on the Induction Motors Simulation and Experimental", International Review of Electrical Engineering (IREE.), Vol. 6, N. 1, January-February 2011

Book Chapter

- [1] M. Monadi, K. Rouzbehi, J.I Candela, P. Rodriguez, "Integration on Distributed Generation Systems with DC Distribution Networks", published in a book in title "Distributed Generation Systems: Design, Operation and Grid Integration"; ISBN: 9780128042083, Elsevier.

CONFERENCE PRESENTATIONS:

1. M. Monadi, H. Farzin, P. Rodriguez, "A Distributed Self-Healing Method for Active Distribution Systems", 8th international conference on renewable energy research and applications (ICRERA), 2019
2. H. Farzin, M. Monadi, P. Rodriguez, "A Cost/Worth Analysis Framework for Reliability Enhancement of Multi-Microgrid Distribution Systems", IEEE PES General Meeting, 2019
3. A. Bidadfar, H. Hooshyar, M. Monadi, L. Vanfretti, "Decoupled Voltage Stability Assessment of Distribution Networks using Synchrophasors", IEEE-PES General Meeting, 2016, USA.
4. L. Vanfretti, H. Hooshyar, F. Mahmood, R.S. Singh, A. Bidadfar, N. Singh, M. Monadi, "Synchrophasor applications for distribution networks enhancing T&D operation and information exchange", ISGAN-NASPI Symposium, Atlanta, 2016.
5. M. Monadi, C. Gavrilluta, J.I. Candela, P. Rodriguez, "A Communication-Assisted Protection for MVDC Distribution Systems with Distributed Generation", IEEE-PES General Meeting 2015, USA

6. M. Monadi, C. Koch-Ciobotaru, A. Luna, J.I. Candela, P. Rodriguez, "Implementation of Differential Relay for MVDC Distribution Systems Using Real Time Simulation and Hardware-in-the-Loop", IEEE ECCE Conference, 2015, USA
7. M. Monadi, C. Koch-Ciobotaru, A. Luna, J.I. Candela, P. Rodriguez, "Design of a Centralized Protection Technique for Medium Voltage DC Microgrids", EPE (ECCE Europe), IEEE Conference, 2015, Switzerland
8. H. Ghorbani, M. Monadi, A. Luna, J.I. Candela, P. Rodriguez, "Enhanced Performance of SVC via Using Rotor Speed Deviation Signal (RSDS)", EPE (ECCE Europe), IEEE Conference, 2015, Switzerland
9. M. Monadi, C. Koch-Ciobotaru, A. Luna, J.I. Candela, P. Rodriguez, "A Protection Strategy for Fault Detection and Location for Multi-Terminal MVDC Distribution Systems with Renewable Energy Systems", ICREA 2014, IEEE Conference
10. C. Koch-Ciobotaru, M. Monadi, A. Luna, P. Rodriguez, "Distributed FLISR Algorithm for Smart Grid self-Reconfiguration based on IEC61850", ICREA2014, IEEE Conference
11. M. Monadi, A. Luna, J.I. Candela, M. Fayeziadeh, P. Rodriguez, "Analysis of Ferroresonance Effects in Distribution Networks with Distributed Source Units", IECON 2013 Conference, Austria
12. Gh. Hemmatipoor, M. Monadi, A. Darabi, and Sh. Shadmani, "Modeling small diesel generator connected to non-linear loads based on space and time-harmonics", ICFCSA IEEE Conference, 2011, China
13. R. Kiyanezhad, S.Gh. Seifossadat, M. Heidari, M. Monadi, "Effect of distribution network unbalance voltage type in respect to identical unbalance factor on the induction motors", ELECO 2009, IEEE Conference, Turkey
14. A.Kadri, M. Monadi, "A Fuzzy-Lyapunov controller for controllable series capacitor in power system", ICIS 2009, IEEE Conference, China
15. S.Gh. Seifossadat, R. Kianinezhad, A. Ghasemi, M. Monadi, "Quality improvement of shunt active power filter, using optimized tuned harmonic passive filters", International Symposium on Power Electronics, Electrical Drives, Automation and Motion, SPEEDAM, 2008, Italy
16. M. Joorabian, M. Monadi, "ANFIS Based Fault Location for EHV Transmission Lines" AUPEC Conference, 2005, Australia
17. M. Joorabian S.M.A. Taleghani-Asl, M. Monadi S.A. Marashi, "Design and Implementation of ANN-Based Fault Location for EHV Transmission Lines", the Sixth International Power Engineering Conference (IPEC2003), 2003, Singapore.

RESEARCH PROJECTS:

1. “Comprehensive studies and designing of automation systems for the steel production process”, funded by South Steel Pishgaman Consultant Engineers Co, 2020 until now, member of research group.
2. “Compilation of soil resistance map in the various zones of the area covered by the Ahwaz Distribution Company and simulation of the appropriate earth system”, funded by Ahwaz Distribution Company, 2020 until now, member of research group.
3. “Optimization of electrical installations designing for the projects belong to Khuzestan Steel Co.” funded by South Steel Pishgaman Consultant Engineers Co., 2019- 2020, project director.
4. “Compilation of request for projects (RFPs) for the Khuzestan Power and Water Company”, funded by Khuzestan Power and Water Company, 2018-2020. member of research group.
5. “IDE4L project: Ideal Grid for All”, website: <http://ide4l.eu/>, funded by European Commission, Sweden/Spain, 2015
6. “Design and implementation of an accurate fault locator for 400-kV transmission line from Abbaspour power plant to hwaz-2 power station using the artificial neural networks”, funded by Khuzestan power and water company, Iran, 2002, member of designing group.
7. “Elimination of the harmful effects of ferroresonanse in 6-kV busbars of Ramin power plant”, funded by Ramin power plant, Ahwaz, Iran, 2006, member of designing group.
8. “Modeling and detection of High-Impedance Faults (HIF) in 33-kV distribution network of Ahwaz City and implementation of the proposed method as a HIF relay”, funded by Ahwaz power distribution Company, Ahwaz, Iran, 2008-2010, member of designing group.
9. “Simulation of isolated diesel generator connected to non-linear loads and study the related power quality issues”, funded by Azad University of Shoshtar, Shoshtar, Iran, 2011, member of research group.
10. “Investigation of unbalance voltages on the operation of three-phase induction motors”, funded by Azad University of Shoshtar, Shoshtar, Iran, 2010, member of research group.
11. “Power system stability enhancement using FACTs devices controlled by smart methods”, funded by Azad University of Bandar-Gaz, Iran, 2009, member of research group.

Invited as a reviewer of following journals/ conferences:

- IEEE Transactions on Power Delivery

- IEEE Transactions on Smart Grid
- IET Generation, Transmission & Distribution.
- IEEE Transactions on Industrial Electronics.
- IET Electrical Systems in Transportation.
- IEEE Systems journal.
- IEEE Access journal.
- Renewable & Sustainable Energy Reviews, Elsevier.
- Neural Computing and Applications, Springer.
- IEEE Power & Energy Society General Meeting (PES-GM).
- IEEE Energy Conversion Congress & Exposition (ECCE).
- IEEE Industrial Electronics Society (IECON).

Computer Skills:

- Power system simulation (Matlab/Simulink , RT-LAB, EMTP, DigSilent, EMTDC)
- Programming (Matlab, C++, Pascal, LabVIEW (and LabVIEW FPGA))
- Office, LaTeX
- ICD designer
- Siemens PLC software (PCS7, S7)

Workshops:

- “Research topics on Industrial and Power Electronics”; Organized by: UPC University; Terrassa-Barcelona, Spain, 2014
- “Power System Protection: An overview”, PhD course; Organized by: Prof. Tatiana M.L. Assis; KTH University/ SmarTS lab; Stockholm, Sweden, 2015
- “Workshop on Resiliency for Power Networks of the future”; Organized by: Prof. Luigi Vanfretti; KTH University/ SmarTS lab; Stockholm, Sweden, 2015
- “Instrumentations issues focusing on PMU measurements”, PhD Course; Organized by: Prof. Jose Eduardo; KTH University/ SmarTS lab; Stockholm, Sweden, 2016
- “Classical Control for Power Systems”, PhD Course; Organized by: Dr. Glauco Taranto/Luigi Vanfretti; KTH University/ SmarTS lab; Stockholm, Sweden, 2015
- “Academic writing resources in English”, Course; Organized by UPC- Barcelona,

LANGUAGES:

- Persian (Native)
- English (Fluent)
- Spanish (Elementary)
- Spain, 2014