



General Information:

- **First Name:** Bahman
- **Last Name:** Bahmanifirouzi
- **Date of Birth:** 1975
- **Email:** bahmani_b@alum.sharif.edu
- **Website:** <http://scholar.google.com/citations?user=8AvtNCYAAAAJ&hl=en>

Research Interest:

- Energy
- Optimization of energy systems
- Micro Grid and Smart Grid
- Operation Planning
- Simulation and modeling
- Renewable Energy

Work Experience:

- System design calculations including short circuit, load flow, motor starting studies etc. Protection and relay co-ordination. Load calculations
- Commissioning Test
- Power plant Starting
- Substation Designer (0.4KV,6.3KV,33KV,66KV)
- Detailed hands-on experience in medium voltage switchgear
- Ability to read single line diagrams and specify all equipment need for the switchgear line-up. Ability to generate detailed schematics and wiring drawings.
- Knowledge of protective relaying and control of switchgear very desirable
- Intimately familiar with IEEE specifications and IEC specifications pertaining to switchgear.

Education:

- Ph.D.**, Electrical Engineering- Power ,Shiraz University, Shiraz, Iran
 Dissertation title: Optimal Electrical and Thermal Operation Planning of Future Energy Systems 2010-2015
 Advisor: Professor Ebrahim Farjah
- M.SC**, Electrical Engineering- Power, Sharif University of Technology, Tehran, Iran
 Dissertation title: Algorithm Procession Design of Power Based Differential Protection for Three Phase Transformer 2000-2002
 Advisor: Professor Ali Mohammad Ranjbar
- B.S.**, Electrical Engineering- Power , Shiraz University, Shiraz, Iran 1994-1999

Work Experience:

Academic		
Sharif University of Technology, Tehran, Iran	Teacher Assistant: <ul style="list-style-type: none"> • Electric Machinery. • Circuit Theory I 	2000- 2001
Islamic Azad University, Marvdasht Branch, Iran	Assistant professor: <ul style="list-style-type: none"> • Operation of power systems • Planning • Smart Grid • Power System Analysis • Renewable energy • Optimization Algorithm 	2003-present
Shiraz University	Teacher Assistant: <ul style="list-style-type: none"> • Fundamental of Electric Engineering 	2011-2012

Industrial		
Moshanir Power Engineering Consultant, Tehran, Iran	<ul style="list-style-type: none"> • Protection and Control Engineer 	2000-2002
Niro Research Institute, Tehran, Iran	<ul style="list-style-type: none"> • Researcher 	2001-2002
T.S.A Co., Fajr petrochemical ,Mahshahr, Iran	<ul style="list-style-type: none"> • Power Plant Starting Engineer 	2002-2003

Designer:

- Designer of Protection Coordination (include simulation, modeling , Short Circuit calculation , load flow, Motor Starting and setting) for Ghadeer petrochemical in Mahshahr, Iran
- Designer of Protection Coordination (include simulation, modeling , Short Circuit calculation , load flow, Motor Starting and setting) for Maroon petrochemical in Mahshahr, Iran
- Designer of Protection Coordination (include simulation, modeling , Short Circuit calculation , load flow, Motor Starting and setting) for Monj Hydro Power Plant, Iran
- Designer of Protection Coordination (include simulation, modeling , Short Circuit calculation , load flow, Motor Starting and setting) for Ahvaz Delvar Afzar Factory, Iran

Awards and Honors:

• 56th rank in nationwide entrance examination for M.Sc among approx. 14500 applicants.	2000
• First rank in Shiraz University entrance examination for Ph.D.	2010
• Best Researcher in Islamic Azad University, Marvdasht Branch, Marvdasht,Iran (engineering branch)	2008
• Best Researcher in Islamic Azad University, Marvdasht Branch, Marvdasht,Iran (engineering branch)	2009
• Best Researcher in Fars Province (engineering branch)	2010
• Best Researcher in Islamic Azad University, Marvdasht Branch, Marvdasht,Iran (engineering branch)	2011
• Best Researcher in Islamic Azad University, Marvdasht Branch, Marvdasht,Iran (engineering branch)	2012
• Best Researcher in Iran, By IRCEO (Iranian Construction Engineering Organization).	2012

• Best Researcher in Islamic Azad University, Marvdasht Branch, Marvdasht,Iran (engineering branch)	2013
• Best Researcher in Islamic Azad University, Marvdasht Branch, Marvdasht,Iran (engineering branch)	2014
• Best Researcher in Islamic Azad University, Marvdasht Branch, Marvdasht,Iran (engineering branch)	2015
• Best Researcher in Fars Province (engineering branch)	2016
• Bright Talent member (Shiraz University)	2011-2015

REVIEW SERVICE:

Journal Reviewer: Journal of IEEE Transaction

Journal Reviewer: Journal of Elsevier

Research Projects:

• Project Manager, “State Estimation in Distribution Network Considering Distributed Generators” In Marvdasht Islamic Azad University.Marvdasht.Iran	2010
• Project Manager, “Optimal Volt/Var control in Distribution Networks including Distributed Generators” In Marvdasht Islamic Azad University.Marvdasht.Iran	2011
• Project Manager, “Optimal sitting and sizing of Distributed Generators in distribution networks” In Marvdasht Islamic Azad University.Marvdasht.Iran	2012
• Project Manager, “Multi objective Economic Dispatch in Electrical Energy Markets” In Marvdasht Islamic Azad University.Marvdasht.Iran	2013
• Project Manager, “Multi objective optimal placement of Voltage Regulators in Distribution Networks” In Marvdasht Islamic Azad University.Marvdasht.Iran	2014
• Project Manager, “Optimal operation in micro grid with considering renewable energy” In Marvdasht Islamic Azad University.Marvdasht.Iran	2015
• Project Manager, “Optimal sizing of battery energy storage for micro-grid operation management using evolutionary algorithm” In Marvdasht Islamic Azad University.Marvdasht.Iran	2016

Selected Training:

- “CMC Test Universe Training Course” Which took place from March 12th till March 14th 2002 in Tehran, Iran by OMICRON electronics GmbH
- “Power Factory Digsilent Software Training Course” Which took place at June 2004 in Tehran, Iran by Matn co.
- “MK6E Digital Meters Training Course” Which took place from August 21th till August 27th 2005 in Singapore by EDM I

Selected Publications:***Journal***

1. **B. Bahmanifrouzi**, S. Sharifinia, R. Azizipanah-Abarghooee, T. Niknam, Scenario-Based Optimal Bidding Strategies of GENCOs in the Incomplete Information Electricity Market Using a New Improved Prey-Predator Optimization Algorithm. IEEE System Journal, Vol.9, No.4, 2015, (ISI Indexed)
2. T. Niknam, B. Bagheri, M. Mirzaei Bonehkhater, **B. Bahmanifrouzi**, “A new teaching-learning-based optimization algorithm for distribution system state estimation”, Journal of Intelligent & Fuzzy Systems, Volume 29, 2015, Pages 791-801 (ISI Indexed)
3. **B. Bahmanifrouzi**, R. Azizipanah-Abarghooee “Optimal sizing of battery energy storage for micro-grid operation management using a new improved bat algorithm”, International Journal of Electrical Power & Energy Systems (Elsevier), Vol.56, 2014, Pages 42-54 (ISI Indexed)
4. **B. Bahmanifrouzi**, R. Khorshidi, “A new optimization algorithm based on teacher learning algorithm for optimal operation of electric grids”, Journal of Intelligent & Fuzzy Systems, Volume 19, 2016, Pages 1-8 (ISI Indexed)
5. **B. Bahmanifrouzi**, R. Khorshidi, M. Jabbari and M. Nafar “A new method for detection of fake data and adaptive fuzzy PI control for power system stability”, Journal of Intelligent & Fuzzy Systems, Volume 29, 2015, Pages 2279-2286 (ISI Indexed)
6. T. Niknam, R. Azizipanah-Abarghooee, M. Zare, **Bahman Bahmani Firouzi**. Reserve Constrained Dynamic Environmental/Economic Dispatch: A New Multi-objective Self-Adaptive Learning Bat Algorithm. IEEE Sys. Journal, 2012, Pages 1-12 (ISI Indexed)
7. T. Niknam, M.R. Narimani, R. Azizipanah-Abarghooee, **B. Bahmanifrouzi**, Multi-objective Optimal Reactive Power Dispatch and Voltage Control: A New Opposition-based Self-Adaptive Modified Gravitational Search Algorithm. IEEE system journal 2012 (ISI Index).
8. **B. Bahmanifrouzi**, E. Farjah, and R. Azizipanah-Abarghooee. An efficient scenario-based and fuzzy self-adaptive learning particle swarm optimization approach for dynamic economic emission dispatch considering load and wind power uncertainties. Energy Journal (Elsevier), Volume, 2013, Pages (ISI Indexed)

9. **B. Bahmanifirouzi**, E. Farjah, and A.R. Seifi. A new algorithm for combined heat and power dynamic economic dispatch considering valvepoint effects. *Energy Journal* (Elsevier), Volume, 2013, Pages (**ISI Indexed**)
10. **B. Bahmanifirouzi**, E. Farjah, and T. Niknam. Multi-objective stochastic dynamic economic emission dispatch enhancement by fuzzy adaptive modified theta particle swarm optimization. *Journal of renewable and sustainable energy* 4, 023105 (2012), pp. 1-15. (**ISI Indexed**)
11. **B. Bahmanifirouzi**, E. Farjah, T. Niknam and E. A. Farsani. A new hybrid HBMO-SFLA algorithm for multi-objective distribution feeder reconfiguration problem considering distributed generator units. *IJST, Transactions of Electrical Engineering*, Vol. 36, No. E1, pp. 51-66.2012 (**ISI Indexed**)
12. T. Niknam, H.R. Masrouf, **B. Bahmanifirouzi**,” Stochastic Generation scheduling Considering Wind Power Generators, *Journal of renewable and sustainable energy* 4, 063119 (2012) ,pp. 1-19 (**ISI Index**).
13. T. Niknam, M. Bornapour, A.H. Gheisari, **B. Bahmanifirouzi**, Impact of heat, power and hydrogen generation on optimal placement and operation of fuel cell power plants, *International Journal of Hydrogen Energy* 38, 2013, pp. 1111-1127 (**ISI Index**).
14. T. Niknam, H. Doagou Mojarrad, **B. Bahmani Firouzi**, A New Optimization Algorithm for Multi-objective Economic/Emission Dispatch, *International Journal of Electrical Power and Energy Systems* 46, 2013, pp. 283-293 (**ISI Index**).
15. Taher Niknam , Hasan Doagou Mojarrad , Hamed Zeinoddini Meymand ,**Bahman Bahmani Firouzi** , Rebuttal to “Discussion of ‘A new honey bee mating optimization algorithm for non-smooth economic dispatch””, *Energy Journal* (Elsevier), Volume 46, 2012, Pages 701-703(**ISI Indexed**)
16. E. Farjah, M. Bornapour , T. Niknam and **B. Bahmanifirouzi**. Placement of Combined Heat, Power and Hydrogen Production Fuel Cell Power Plants in a Distribution Network. *Energies* 2012: 5: 790-814. (**ISI Indexed**)
17. T. Niknam, M. R. Narimani, E. Farjah, **B. Bahmanifirouzi**. A new evolutionary optimization algorithm for optimal power flow in a power system involving unified power flow controller. *Energy Education Science and Technology Part A* 29(2), (2012), 901-912. (**ISI Indexed**)
18. **B. Bahmanifirouzi**, “A novel Multi-objective Chaotic Crazy PSO algorithm for Optimal Operation Management of distribution network with regard to Fuel Cell Power Plants”, *International Journal of Innovative Computing, Information and Control*, 2011(**ISI Indexed**)
19. **B. Bahmanifirouzi**, Mokhtar Sha Sadeghi, Taher Niknam, “A New Hybrid Algorithm Based on PSO, SA, and K-means for Cluster Analysis”, *International Journal of Innovative Computing, Information and Control*, Volume 6, Number 4, July 2010, Pages 3177-3192 (**ISI Indexed**)
20. Taher Niknam , **Bahman Bahmani Firouzi** , Hasan Doagou Mojarrad, “A new evolutionary algorithm for non-linear economic dispatch”, *Expert Systems with Applications Journal* (Elsevier), Volume 38, 2011, Pages 13301-13309(**ISI Indexed**)
21. Taher Niknam , Hasan Doagou Mojarrad , Hamed Zeinoddini Meymand ,**Bahman Bahmani Firouzi** , “A new honey bee mating optimization algorithm for non-smooth economic dispatch””, *Energy Journal* (Elsevier), Volume 36, 2011, Pages 896-908(**ISI Indexed**)
22. Taher Niknam , Ehsan Azad Farsani, Majid Nayeripour, **Bahman Bahmani Firouzi** , “Hybrid Fuzzy Adaptive Particle Swarm Optimization and Differential Evolution Algorithm for Distribution Feeder Reconfiguration”, *Electric Power Components and Systems Journal* , Volume 39, 2011, Pages 158-175(**ISI Indexed**)

23. Taher Niknam , Ehsan Azad Farsani, Majid Nayeripour, **Bahman Bahmani Firouzi** , “A new tribe modified shuffled frog leaping algorithm for multi-objective distribution feeder reconfiguration considering distributed generator units”, European Transactions on Electrical Power, 2011(**ISI Indexed**)
24. Taher Niknam ,R.Khorshidi,**B.Bahmanifirouzi**, “A hybrid evolutionary algorithm for distribution feeder Reconfiguration”, Springer Journal, Volume 32, April 2010, Pages 139-162(**ISI Indexed**)
25. Taher Niknam ,**B.Bahmanifirouzi**, Amir Ostadi, “A new fuzzy adaptive particle swarm optimization for daily Volt/Var control in distribution networks considering distributed generators”, Applied Energy Journal (Elsevier), Volume 34, November 2010, Pages 2309-2316(**ISI Indexed**)
26. Taher Niknam ,**B.Bahmanifirouzi**, “A practical algorithm for distribution state estimation including renewable energy sources”, Renewable Energy Journal (Elsevier), Volume 34, November 2009, Pages 2309-2316(**ISI Indexed**)
27. **B.Bahmanifirouzi** ,Taher Niknam, Majid Nayeripour, “A New Evolutionary Algorithm for Cluster Analysis”, International Journal of Computer Science 4:4,237-241, 2009

Conference

1. **B.Bahmanifirouzi**, Taher Niknam, Majid Nayeripour, “A New Evolutionary Algorithm for Placement of Distributed Generation”, Proceedings of the IEEE, China, September 2011
2. Taher Niknam, **B.Bahmanifirouzi**, “Modified Adaptive PSO algorithm to solve Dynamic Economic Dispatch”, Proceedings of the IEEE, China, September 2011
3. M.Esmi Jahromi, **B.Bahmanifirouzi**, A.M.Ranjbar, “Possibility of Large Synchronous Generator Parameters Estimation via On-Line Field Tests Using Genetic Algorithm”, Proceedings of the IEEE Power Tech. , Delhi, India, April 2006
4. **B.Bahmanifirouzi**, M.Esmi Jahromi, A.M.Ranjbar, “Optimizing the Operation of Current Differential Protection by Power Differential Relay for Three Phase Transformer”, Proceedings of the 3th IEEE GCC Conference, Manama, Bahrain, March 2006
5. **B.Bahmanifirouzi**, A.M.Ranjbar, “Power Transformer Fault Modeling and Differential Relay Performance”, International Power System Conference (PSC02), 2002, Tehran, Iran
6. **B.Bahmanifirouzi**, “Power System Operaton Experience of Using Silicon Rubber Insulator In Bushehr Province”,4th Insulator Special Seminar,2006, Tehran, Iran
- 7.**B.Bahmanifirouzi**,“ Distribution Feeder Reconfiguration in the New Environment Distribution Networks”, Proceedings of the 4th IEEE GCC Conference, Manama, Bahrain, November 2007
- 8.**B.Bahmanifirouzi**, “Impact of Distributed Generators on the Daily Optimal Operation of Distribution Network”, Proceedings of the 4th IEEE GCC Conference, Manama, Bahrain, November 2007
9. **B.Bahmanifirouzi**, Taher Niknam, Majid Nayeripour, “A New Evolutionary Algorithm for Cluster Analysis”, Proceedings of World Academy of Science, Engineering And Technology Volume 36 December 2008

10. **B.Bahmanifrouzi**, Taher Niknam, Majid Nayeripour, “A Genetic Based Approach for Volt/Var Control in Distribution Network”, Proceedings of World Academy of Science, Engineering And Technology Volume 56 September 2009

11. **B.Bahmanifrouzi**, Taher Niknam, Majid Nayeripour, “An ACO Based Algorithm for Distribution Networks Including Dispersed Generations”, Proceedings of World Academy of Science, Engineering And Technology Volume 60 December 2009

12. **B.Bahmanifrouzi Firouzi**, R.Khorshidi, Taher Niknam, “A New Modified Honey Bee Mating Optimization Algorithm For Data Mining”, Proceedings of ITC-CSCC, July 2010

Computer Skills:

- Power System Analysis Software: ATP/EMTP,ETAP,CYME, Digsilent
- Operating Systems: Ms-Dos, Windows 2003/2007/NT/XP
- Packages: Matlab, Simulink, Word, Excel, PowerPoint