Dr. Hamid Reza Baghaee
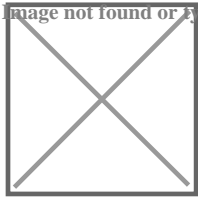

Associate Research Professor
Amirkabir University of Technology(AUT)
(Tehran Polytechnic)

Biography:

    Hamid Reza Baghaee was born in Kashan, Iran, in June 1984 and received his Ph.D. degree in Electrical Engineering from Amirkabir University of Technology (AUT) in 2017. From 2007 to 2017, he had been a teaching and research assistant in the department of electrical engineering of AUT. He is the author of one book, two published book chapter, 65 ISI-ranked journal papers (mostly in IEEE, IET and Elsevier journals), and 55 conference papers, and owner of a registered patent. Up to now, among his journal papers, he has 3 HOT paper and 7 HIGHLY-CITED papers, based on SciVal and Web of Science statistics. His special fields of interest are micro and smart grids, cyber-physical systems, application of power electronics in power systems, distributed generation, and renewable energy resources, FACTS CUSTOM Power devices, and HVDC systems, power system operation, and control, real-time simulation of power systems, microgrids, and power electronic converters, and application of artificial intelligence in power systems.

Dr. Baghaee is also the winner of four national and international prizes, as the best dissertation award, from Iranian scientific organization of smart grids (ISOSG) in December 2017, Iranian energy association (IEA) in February 2018, AUT in December 2018, and IEEE Iran Section in May 2019 for his Ph.D. dissertation. In August 2019, he joined AUT as an associate research professor in the department of electrical engineering, and he is the project coordinator of the AUT Pilot Microgrid Project as one of the sub-projects of Iran Grand (National) Smart Grid Project. He has been a co-supervisor of more than Ph.D and M.Sc. students since 2017. He was a short-term scientist with CERN and ABB, Switzerland. He was selected as the top 1% reviewer of engineering in September 2018 and the top 1% reviewer of engineering and cross-field in September 2019. Dr. Baghaee is also Member of IEEE, IEEE Smart Grid Community, IEEE Internet of Things Technical Community, IEEE Big Data Community, IEEE Sensors Council, Iran Scientific organization of Smart Grids (ISOSG). He is also the reviewer of several IEEE and IET journals and guest editor of several special issues in IEEE, IET, Elsevier and MDPI, and members of scientific program committees of several IEEE conferences.

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Educational Records

Post Doc. in Microgrid

Department of Electrical Engineering,

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran. (in Collaboration with Foundation of Iranian Elites)

Majoring in Power System Engineering.

Post Doc Proposal Title:

Control and Management of Future Active Distribution Networks

Supervisor: Prof. Gevorg B. Gharehpetian

PhD in Electrical Engineering

Department of Electrical Engineering,

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.

Majoring in Power System Engineering.

Thesis Title:

Control of Smart Microgrids to Respond to Large-Signal Disturbances and Nonlinearities and its Real-time Implementation

Supervisor: Prof. Sayyed Mojtaba Mirsalim   **Advisors**: Prof. Gevorg B. Gharehpetian , Professor Heidar Ali Talebi

Majoring in Power.

Teaching

Publication

Journal Papers

NO	TITLE	YEAR
1	**Integrated Nonlinear Hierarchical Control and Management of Hybrid AC/DC Microgrids** Mojtaba Biglarahmadi, Abbas Ketabi, Hamid Reza Baghaee, and Josep M. Guerrero IEEE System Journal, vol. PP, no. 99, pp. 1-12, DOI: 10.1109/JSYST.2021.3050334	2021
2	**Real-Time FPGA-based HIL Emulator of Power Electronics Controllers using NI PXI for DFIG studies** M. E. Iranian, M. Mohseni, S. Aghili, A. Parizad, H. R. Baghaee, and Josep M. Guerrero IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. PP, no. 99, pp. 1-14, DOI: 10.1109/JESTPE.2020.3023100.	2020
3	**Robust Hierarchical Control of VSC-based Off-grid AC Microgrids to Enhance Stability and FRT Capability Considering Time-Varying Delays** Mohammad Raeispour, Hajar Atrianfar, Hamid Reza Baghaee, and G. B. Gharehpetian IEEE Journal of Emerging and Selected Topics in Power Electronics , vol. PP, no. 99, pp. 1-14, DOI: 10.1109/JESTPE.2020.3017713.	2020
4	**A Fuse Saving Scheme for DC Microgrids with High Penetration of Renewable Energy Resources** Navid Bayati, Hamid Reza Baghaee, Amin Hajizadeh, and Mohsen Soltani IEEE Access, vol. 8, pp. 137407 - 137417, July 2020, DOI: 10.1109/ACCESS.2020.3012195.	2020
5	**Voltage and Frequency Consensusability of Autonomous Microgrids Over Fading Channels** Nima Mahdian Dehkordi, Amir Khorsandi, Hamid Reza Baghaee, Nasser sadati, Shahriar Shirvani Moghaddam and Josep M. Guerrero IEEE Trans. on Energy Conversion, vol. PP, no. 99, pp. 1-10, June 2020, DOI: 10.1109/TEC.2020.3005269.	2020
6	**Determining Impact of Lightning Strike Location on Failures in Transmission Network Elements using Fuzzy Decision Making** Ivica Petrovi?, Srete Nikolovski, Hamid Reza Baghaee, Hrvoje Glavaš IEEE Systems Journal, vol. 14, no. 2, pp. 2665-2675, June 2020, DOI: 10.1109/JSYST.2019.2923690.	2020
7	**Current Compensation in Grid-Connected VSCs using Advanced Fuzzy Logic-based Fluffy-Built SVPWM Switching** Yuvaraja Teekaraman , K Ramya, Hamid Reza Baghaee, Marko Vukobratovic , Zoran Balkic , Srete Nikolovsk Energies, vol. 13, no. 5, pp. 1259, March 2020, DOI: 10.3390/en13051259	2020
8	**Adaptive Virtual Inertia Control for High-speed Flywheel Energy Storage Systems** Shahab Karrari, Hamid Reza Baghaee, Giovanni De Carne, Mathias Noe, Joern Geisbuesch IET Gen., Trans., Dist., vol. 14, no. 22, pp. 5047 – 5059, November 2020, DOI: 10.1049/iet-gtd.2020.0066.	2020
9	**Real-time simulator and offline/online closed-loop test bed for power system modeling and development** Ali Parizad, Hamid Reza Baghaee, Mohamad Esmaeil Iranian, Gevork B. Gharehpetian, and J.M. Guerrero International Journal of Electrical Power and Energy Systems, vol. 112, no. 1, pp. 1-16, November 2020, DOI: 10.1016/j.ijepes.2020.106203.	2020
10	**Smart Grid Monitoring by Wireless Sensors using Machine Learning Algorithms** Hariprasath Manoharan, Yuvaraja Teekaraman, Irina Kirpichnikovaim, Ramya Kuppusamy, Srete Nikolovski, and Hamid Reza Baghaee Energies, vol. 13, no. 15, pp. 3974, August 2020, DOI: 10.3390/en13153974.	2020

11	**Support Vector Machine-based Islanding and Grid-Fault Detection for Active Distribution Networks** Hamid Reza Baghaee, Dragan Mlaki?, Srete Nikolovski, Tomislav Dragicevic IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 8, no. 3, pp. 2385 - 2403, September 2020, DOI: 10.1109/JESTPE.2019.2916621.	2020
12	**Anti-Islanding Protection of PV-based Microgrids Consisting of PHEVs using SVMs** Hamid Reza Baghaee, Dragan Mlaki?, Srete Nikolovski, Tomislav Dragicevic IEEE Transactions on Smart Grid, vol. 11, no. 1, pp. 483 - 500, January 2020, DOI: 10.1109/TSG.2019.2924290.	2020
13	**A review on intentional controlled islanding in smart power systems and generalized framework for ICI in microgrids** Amir Reza Hassani Ahangar, Gevork B. Gharehpetian, Hamid Reza Baghaee International Journal of Electrical Power & Energy Systems, vol. 118, no. 1, pp. 105709, June 2020, DOI: 10.1016/j.ijepes.2019.105709.	2020
14	**Resilient cooperative control of AC microgrids considering relative state-dependent noises and communication time-delays** Amir Afshari, Mehdi Karrari, Hamid Reza Baghaee, and G. B. Gharehpetian IET Renewable Power Generation , vol. 14 no. 2 pp. 1321 - 1331, June 2020, DOI: 10.1049/iet-rpg.2019.1180	2020
15	**Distributed LMI-based Control of Heterogeneous Microgrids Considering Fixed Time-Delays and Switching Topologies** Mohammad Raeispour, Hajar Atrianfar, Hamid Reza Baghaee, and G. B. Gharehpetian IET Renewable Power Generation, vol. 14, no. 12, pp. 2068 - 2078, September 2020, DOI: 10.1049/iet-rpg.2019.1113.	2020
16	**Cooperative Fault-Tolerant Control of Microgrids under Switching Communication Topology** Amir Afshari, Mehdi Karrari, Hamid Reza Baghaee, G. B. Gharehpetian, and Shahab Karrari IEEE Transactions on Smart Grid, vol. 11, no. 3, pp. 1866 - 1879, May 2020, DOI: 10.1109/TSG.2019.2944768.	2020
17	**Resilient Distributed Control of BESSs and VSC-based Microgrids Considering Switching Topologies and Time-Varying Delays** Mohammad Raeispour, Hajar Atrianfar, Hamid Reza Baghaee, and G. B. Gharehpetian IET Gen., Trans., Dist., vol. 14, no. 22, pp. 5060 – 5071, November 2020, DOI: 10.1049/iet-gtd.2019.1913.	2020
18	**Resilient Synchronization of Voltage/Frequency in AC Microgrids Under Deception Attacks** Amir Afshari, Mehdi Karrari, Hamid Reza Baghaee, and G. B. Gharehpetian IEEE Systems Journal , vol. PP, no. 99, pp. 1-12, May 2020, DOI: 10.1109/JSYST.2020.2992309	2020
19	**Localized Protection of Radial DC Microgrids With High Penetration of Constant Power Loads** Navid Bayati, Hamid Reza Baghaee, Amin Hajizadeh, and Mohsen Soltani IEEE Systems Journal , vol. PP, no. 99, pp. 1-12, June 2020, DOI:10.1109/JSYST.2020.2998059	2020
20	**Detection of False Data Injection Cyber-Attacks in DC Microgrids based on Recurrent Neural Networks** Mohammad Reza Habibi, Hamid Reza Baghaee, Tomislav Dragicevic, and Frede Blaabjerg IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. PP, no. 99, pp. 1-18, January 2020, DOI: 10.1109/JESTPE.2020.2968243.	2020
21	**Distributed Fault-Tolerant Voltage/Frequency Synchronization in Autonomous Microgrids** Amir Afshari, Mehdi Karrari, Hamid Reza Baghaee, and G. B. Gharehpetian IEEE Trans. on Power Systems, vol. 35, no. 5, pp. 3774 - 3789, September 2020, DOI: 10.1109/TPWRS.2020.2975115.	2020

22	**Robust Distributed Disturbance-Resilient H?-based Control of Off-Grid Microgrids with Uncertain Communications** Mohammad Raeispour, Hajar Atrianfar, Hamid Reza Baghaee, and G. B. Gharehpetian IEEE Systems Journal, vol. PP, no. 99, pp. 1-11, September 2020, DOI: 10.1109/JSYST.2020.3001243.	2020
23	**Resilient H? Consensus-based Control of Autonomous AC Microgrids with Uncertain Time-Delayed Communications** Mohammad Raeispour, Hajar Atrianfar, Hamid Reza Baghaee, and G. B. Gharehpetian IEEE Transactions on Smart Grid, vol. 11, no. 5, pp. 3871 - 3884, September 2020, DOI: 10.1109/TSG.2020.2992646.	2020
24	**Power Management of Microgrids including PHEVs based on Maximum Employment of Renewable Energy Resources** Ehsan Fouladi, Hamid Reza Baghaee, Mehdi Bagheri, and G. B. Gharehpetian IEEE Trans. on Industry Applications, vol. 56, no. 5, pp. 5299-5307, Sep.-Oct. 2020, DOI: 10.1109/TIA.2020.3010713	2020
25	**A Physical Model for Information Transmission** Dragan Mlaki?, Hamid Reza Baghaee IEEE Systems Journal, vol. PP, no. 99, pp. 1-7, July 2020, DOI: 10.1109/JSYST.2020.3004697	2020
26	**False Data Injection Cyber-Attacks Mitigation in Parallel DC/DC Converters based on Artificial Neural Networks** Mohammad Reza Habibi, Hamid Reza Baghaee, Tomislav Dragicevic, and Frede Blaabjerg IEEE Trans. on Circuits and Systems II: Express Briefs, vol. PP, no. 99, pp. 1-5, July 2020, DOI: 10.1109/TCSII.2020.3011324	2020
27	**Robust Sliding Mode and Mixed H2/H? Output Feedback Primary Control of AC Microgrids** Mohammad Raeispour, Hajar Atrianfar, Hamid Reza Baghaee, and G. B. Gharehpetian IEEE System Journal, vol. PP, no. 9, pp. 1-12, August 2020, DOI: 10.1109/JSYST.2020.2999553.	2020
28	**Smart V2G/G2V Charging Strategy for PHEVs in AC Microgrids Based on Maximizing Battery Lifetime and RERs/DERs Employment** Ehsan Fouladi, Hamid Reza Baghaee, Mehdi Bagheri, and G. B. Gharehpetian IEEE Systems Journal, vol. PP, no. 99, pp. 1-12, November 2020, DOI: 10.1109/JSYST.2020.3034045.	2020
29	**Mathematical Morphology-based Local Fault Detection in DC Microgrid Clusters** Navid Bayati, Hamid Reza Baghaee, Amin Hajizadeh, Mohsen Soltani, Zhengyu Lin Electric Power System Research, November 2020	2020
30	**Distributed Noise-resilient Secondary Voltage and Frequency Control for Islanded Microgrids** Nima Mahdian Dehkordi, Hamid Reza Baghaee, N. Sadati, Josep M. Guerrero IEEE Transactions on Smart Grid, vol. 10, no. 4, pp. 3780-3790, July 2019, DOI: 10.1109/TSG.2018.2834951.	2019
31	**Perspectives and Intensification of Energy Efficiency in Commercial and Residential Buildings using Strategic Auditing and Demand-Side Management** Pawan Kumar, Gagandeep Singh Brar, Surjit Singh, Srete Nikolovski, Hamid Reza Baghaee Energies, vol. 12, no. 23, pp. 4539, DOI: 10.3390/en12234539	2019
32	**OC/OL Protection of Droop-Controlled and Directly Voltage-Controlled Microgrids using TMF/ANN-based Fault Detection and Discrimination** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. PP, no. 99, pp. 1-12, December 2019, DOI: 10.1109/JESTPE.2019.2958925.	2019
33	**A Novel ANFIS-based Islanding Detection for Inverter–Interfaced Microgrids** Dragan Mlaki?, Hamid Reza Baghaee, Srete Nikolovski, IEEE Transactions on Smart Grid, vol. 10, no. 4, pp. 4411-4424, July 2019, DOI: 10.1109/TSG.2018.2859360.	2019

34	Gibbs Phenomenon-based Hybrid Islanding Detection Strategy for VSC–based Microgrids using Frequency Shift, THDu and RMSu Dragan Mlaki?, Hamid Reza Baghaee, Srete Nikolovski, IEEE Transactions on Smart Grid, vol. 10, no. 5 pp. 5479 - 5491, September 2019, DOI: 10.1109/TSG.2018.2883595.	2019
35	Islanding Detection of Synchronous Generator-Based DGs using Rate of Change of Reactive Power Srete Nikolovski, Hamid Reza Baghaee, Dragan Mlaki?, IEEE Systems Journal, vol. 13, no. 4 pp. 4344 - 4354, December 2019, DOI: 10.1109/JSYST.2018.2889981.	2019
36	Conceptual Design of IoT-Based AMR Systems Based on IEC 61850 Microgrid Communication Configuration Using Open-Source Hardware/Software IED Dragan Mlaki´c , Hamid Reza Baghaee, Srete Nikolovski , Marko Vukobratovi´c and Zoran Balki´c Energies, vol. 12, no. 22, pp. 4281, November 2019, Doi: 10.3390/en12224281	2019
37	Generalized three phase robust load-flow for radial and meshed power systems with and without uncertainty in energy resources using dynamic radial basis functions neural networks H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi Journal of Cleaner Production, vol 174, part C, pp. 96-113, February 2018, DOI: 10.1016/j.jclepro.2017.10.316.	2018
38	Decentralized sliding mode control of WG/PV/FC microgrids under unbalanced and nonlinear load conditions for on- and off-grid modes H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IEEE Systems Journal, vol. 12, no. 4, pp. 3108-3119, December 2018, DOI: 10.1109/JSYST.2017.2761792.	2018
39	Performance improvement of Multi-DER microgrid for small and large-signal disturbances and nonlinear loads: novel complementary control loop and fuzzy controller in a hierarchical droop-based control scheme H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian IEEE Systems Journal, vol. 12, no. 1, pp. 444-451, March 2018, DOI: 10.1109/JSYST.2016.2580617.	2018
40	MOPSO/FDMT-based Pareto-optimal solution for coordination of overcurrent relays in interconnected networks and multi-DER microgrids H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IET Gen., Trans. Dist., vol.12, no. 12, pp. 2871–2886, July 2018, DOI: 10.1049/iet-gtd.2018.0079.	2018
41	Nonlinear load sharing and voltage compensation of microgrids based on harmonic power-flow calculations using radial basis function neural networks H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IEEE Systems Journal, vol. 12 no. 3, pp. 2749-2759, September 2018, DOI: 10.1109/JSYST.2016.2645165.	2018
42	Unbalanced harmonic power sharing and voltage compensation of microgrids using radial basis function neural network-based harmonic power-flow calculations for distributed and decentralized control structures H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IET Gen., Trans. Dist, vol. 12, no. 7, pp. 1518–1530, April 2018, DOI: 10.1049/iet-gtd.2016.1277.	2018
43	A decentralized robust mixed H2/H? voltage control scheme to improve small/large-signal stability and FRT capability of islanded multi-der microgrid considering load disturbances H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IEEE Systems Journal, vol. 12, no. 3, pp. 2610-2621, September 2018, DOI: 10.1109/JSYST.2017.2716351.	2018
44	ANFIS-based Peak Power Shaving/Curtailment in Microgrids including PV Units and BESSs Srete Nikolovski, Hamid Reza Baghaee, Dragan Mlaki?, Energies, vol. 11, no. 11, pp. 2953;October 2018, DOI: 10.3390/en11112953	2018

45	**Fuzzy Unscented Transform for Uncertainty Quantification of Correlated Wind/PV Microgrids: Possibilistic-Probabilistic Power Flow based on RBFNNs** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi, IET Renewable Power Generation, vol. 11, no. 6, pp. 867-877, May 2017, DOI: 10.1049/iet-rpg.2016.0669.	2017
46	**Application of RBF neural networks and unscented transformation in probabilistic power-flow of microgrids including correlated wind/PV units and plug-in hybrid electric vehicles** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi Simulation, Modelling, Practice and Theory, vol. 72, pp. 51-68, March 2017, DOI: 10.1016/j.simpat.2016.12.006.	2017
47	**A generalized descriptor-system robust H? control of autonomous microgrids to improve small and large signal stability considering communication delays and load nonlinearities** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi International Journal of Electrical Power & Energy Systems, vol. 92, no. 1, pp. 63-82, November 2017, DOI: 10.1016/j.ijepes.2017.04.007.	2017
48	**A new current limiting strategy and fault model to improve fault ride-through capability of inverter interfaced DERs in autonomous microgrids** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi Sustainable Energy Technologies and Assessments, vol. 24, part C, pp. 71-81, December 2017, DOI: 10.1016/j.seta.2017.02.004.	2017
49	**A decentralized power management and sliding mode control strategy for hybrid AC/DC microgrids including renewable energy resources** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IEEE Trans. on Industrial Informatics, vol. PP, no. 99, pp. 1-10, March 2017, DOI: 10.1109/TII.2017.2677943.	2017
50	**A Hybrid ANFIS/ABC-based Online Selective Harmonic Elimination Switching Pattern for Cascaded Multi-level Inverters of Microgrids** H.R. Baghaee, S. M. Mirsalim, G. B. Gharehpetian, H.A. Talebi, Alireza Niknam-Kumle IEEE Trans. on Industrial Electronics, vol. PP, no. 99, pp. 1-10, April 2017, DOI: 10.1109/TIE.2017.2694403.	2017
51	**Eigenvalue, robustness and time delay analysis of hierarchical control scheme in multi-DER microgrid to enhance small/large-signal stability using complementary loop and fuzzy logic controller** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi Journal of Circuits, Systems and Computers, vol. 26, no. 6, pp. 1-30, June 2017, DOI: 10.1142/S0218126617500992.	2017
52	**Multi-objective optimal power management and sizing of a reliable wind/PV microgrid with hydrogen energy storage using MOPSO** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi Journal of Intel. and Fuzzy Sys., vol. 31, no. 2, pp. 1-15, February 2017, DOI: 10.3233/JIFS-152372.	2017
53	**Three phase AC/DC power-flow for balanced/unbalanced microgrids including wind/solar, droop-controlled and electronically-coupled distributed energy resources using RBF neural networks** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi IET Power Electronics, vol. 10, no. 3, pp. 313-328, March 2017, DOI: 10.1049/iet-pel.2016.0010.	2017
54	**Real-time verification of new controller to improve small/large-signal stability and fault ride-through capability of multi-DER microgrids** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian IET Gen., Trans. Dist., vol.10, no. 12, pp. 3068 - 3084, Sept. 2016, DOI: 10.1049/iet-gtd.2016. 0315.	2016
55	**Reliability/cost based multi-objective pareto optimal design of stand-alone wind/PV/FC generation microgrid system** H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian, H.A. Talebi Energy, vol. 115, part 1, pp. 1022–1041, November 2016, DOI: 10.1016/j.energy.2016.09.007.	2016

56	Power calculation using RBF neural networks to improve power sharing of hierarchical control scheme in multi-DER microgrids H.R. Baghaee, M. Mirsalim, G.B. Gharehpetian IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 4, no. 4, pp. 1217-1225, December 2016, DOI: 10.1109/JESTPE.2016.2581762.	2016
57	Security/Cost-based Optimal Allocation of Multi-type FACTS Devices using Multi-Objective Particle Swarm Optimization H.R. Baghaee, A. Kashefi Kaviani, M. Mirsalim, G.B. Gharehpetian Simulation: International Transactions of the Society for Modeling and Simulation, vol. 88, no. 8, pp.999-1010, March 2012, DOI: 10.1177/0037549712438715.	2012
58	Calculation of Weighting Factors of Static Security Indices used in Contingency Ranking of Power Systems based on Fuzzy Logic and Analytical Hierarchy Process H.R. Baghaee, M. Abedi International Journal of Electrical Power and Energy Systems, vol. 33, no. 4, pp. 855-860, May 2011, DOI: 10.1016/j.ijepes.2010.12.012.	2011
59	Harmonic Optimization in Equal DC source Multi-Level Inverters using Bacteria Foraging Algorithm H. R. Baghaee, M. Mirsalim Iran Power Plant Projects Management (MAPNA Group) Scientific Journal, accepted on 24 November 2010, published on December 2010. (Scientific Research Journal)	2010
60	Optimal Sizing of a Stand-alone Wind/PV Generation Unit using PSO A. Kashefi Kaviani, H.R. Baghaee, G.H. Riahy Simulation: International Transactions of the Society for Modeling and Simulation, vol. 85, no. 2, pp.89-99, February 2009, DOI: 10.1177/0037549708101181.	2009

Conference Papers

NO	TITLE	YEAR
1	Novel and efficient Adaptive Single Phase Auto-reclosing approach for HV Transmission Lines M. Jannati, B. Vahidi, S.H.Hosseinian, Hamid Reza Baghaee 2nd Power System Protection and Control Conference (PSPC), Amirkabir University of Technology, Tehran Iran, January, 2008.	2008
2	Analysis the islanding mode of combined operation of DG and UPQC in unbalanced distribution system S. M. Ale-Emran, Hamid Reza Baghaee, G. B. Gharehpetian, M. Abedi International Conference on Renewable Energy and Power Quality, (ICREPQ'08) Santander Spain, March, 2008	2008
3	Power factor improvement of DC/DC converter of micro-turbines Hamid Reza Baghaee, S. M. Mirsalim, S.M.Ale-Emran, M. Abedi, G. B. Gharehpetian International Conference on Renewable Energy and Power Quality, (ICREPQ'08) Santander Spain, March, 2008	2008
4	Optimal Multi-type FACTS Allocation using Genetic Algorithm to Improve Power System Security Hamid Reza Baghaee, S. Jazebi, B. Vahidi, S.H. Hosseinian, M. Jannati 12th IEEE International Middle-East Power Systems Conference (MEPCON), Aswan, Egypt, March 2008	2008
5	A novel approach for online fault detection in HVDC converters M.Jannati, Hamid Reza Baghaee, J. Moshtagh, E. Nasr 12th IEEE International Middle-East Power Systems Conference (MEPCON), Aswan, Egypt, March 2008	2008

| 6 | A New Adaptive Single Phase Auto-reclosure Scheme for EHV Transmission Lines
M. Jannati, B. Vahidi, S.H.Hosseinian, Hamid Reza Baghaee
12th IEEE International Middle-East Power Systems Conference (MEPCON), Aswan, Egypt, March 2008 | 2008 |
| 7 | Design and optimal sizing of a photovoltaic/wind-generator system using particle swarm optimization
A. Kashefi Kaviani, Hamid Reza Baghaee, G. H. Riahy
22nd Power System Conference (PSC), Tehran Iran, 2007. | 2007 |

Books

NO	TITLE	YEAR
1	Microgrids and Methods of Analysis G.B. Gharehpetian, Hamid Reza Baghaee, M.M. Shebestari Book, Elsevier Publishing, Cambridge, MA, USA, August 2020, Paperback ISBN: 9780128161722. (English)	2020
2	Advances in Renewable Energy and Power Quality: Chapter 8- New Trends in Operation, Management and Control of Future Active Distribution Networks Hamid Reza Baghaee, G.B. Gharehpetian Book-Chapter, Chapter 20, Cambridge Scholar Publishing (CSP), London, UK, February 2020. (English)	2020
3	Search Algorithms for Engineering Optimization: Chapter 8- Application of Harmony Search Algorithm in Power Engineering Hamid Reza Baghaee, S.M. Mirsalim, G.B. Gharehpetian Chapter Book-Chapter 8, InTech Open Access Publishing, Crovatia, 2013. (English)	2013

Patents

NO	TITLE	YEAR
1	Hybrid Pump Storage Electrical Power Generation System Hamid Reza Baghaee, Mojtaba Mashayekhi, Registered on Department General for Companies and Industrial Ownership Registration, Registration Date: July 01 2009, Registration Number: 59838.	209

Industrial Projects

NO	TITLE	YEAR

Management/Administration Jobs

Scientific Societies

Awards