

MOHAMMAD A.S. MASOUM, Ph.D., MSc, BS, SIEEE
Journal Publications

Citations and Publications (September 2019):

- Citation: 8330+.
- H-Index: 40.
- i10-index: 117.
- Publications: 7 Books, 5 Volumes/Book Chapters, 1 Invention, 329 papers (135 Journals and 194 Conferences).

Recent Books:

1. **M.A.S. Masoum**, E.F. Fuchs, “*Power Quality in Electrical Machines and Power Systems*”, Elsevier, Academic Press, USA, Second Edition, SSN: 978-0-12-800782-2, July 2015, **Cited: Over 646+ times.**
2. E.F. Fuchs, **M.A.S. Masoum**, “*Power Conversion of Renewable Energy Systems*”, Springer, USA, Second Edition, September 2012 (ISBN: 978-1-4419-7978-0).
3. E.F. Fuchs, **M.A.S. Masoum**, “*Power Conversion of Renewable Energy Systems*”, Springer, USA, First Edition, April 2011 (ISBN: 978-1-4419-7978-0).
4. E.F. Fuchs, **M.A.S. Masoum**, “*Power Quality in Electrical Machines and Power Systems*”, Elsevier, Academic Press, USA, Feb. 2008 (ISBN-13: 978-0-12-369536-9).

Recent Book Chapters and Edited Volumes:

1. A. Abu-Siada, **M.A.S. Masoum**, Y. Alharbi, F. Shahnian, A.M.S. Yunu, “*Recent Advances in Renewable Energy (Volume 2: Application of Flexible AC Transmission System Devices in Wind Energy Conversion Systems)*”, Bentham Science Publishers, UAE, 2017.
2. S. Deilami, A.S. Masoum, **M.A.S. Masoum**, A. Abu-Siada, S.M. Islam, “*Optimal Scheduling of LTC and Switched Shunt Capacitors in Smart Grid Concerning Overnight Charging of Plug-in Electric Vehicles*”, Applied Engineering Sciences, ed. Wei Deng, 71-76. London UK, CRC Press is part of The Taylor & Francis Group: CRC Press, 2014.
3. A. S. Masoum, S. Deilami, **M.A.S. Masoum**, A. Abu-Siada, and S. M. Islam, “*Overnight Coordinated Charging of Plug-In Electric Vehicles based on Maximum Sensitivities Selections*”, Applied Engineering Sciences, ed. Wei Deng, 65-70. London UK, CRC Press is part of The Taylor & Francis Group: CRC Press, 2014.
4. A. Abu-Siada, **M.A.S. Masoum**, S. Islam, “*Proceedings of the Australasian Universities Power Engineering Conference, AUPEC 2014*”, ISBN: 978-0-646-92375-8, Perth, Australia, November 2014.
5. P. Wolfs, D. Jayaweera, A. Abu-Siada, **M.A.S. Masoum**, S. Islam, “*Proceedings of the IEEE PES ISGT Asia Conference*”, IEEE, ISBN: 978-1-4577-0874-9, Perth, Australia, 2011.

Invention Disclosure:

- E.F. Fuchs, **M.A.S. Masoum**, “*Suppression of Harmonic Distortion in Power Systems Due to Geomagnetically Induced Currents (GICs) Through Enforcing GIC Balance in all Phases of a System*,” Invention Disclosure, University of Colorado, Boulder, June 1, 1992.

Ten Career-Best Publications:

1. **M.A.S. Masoum**, H. Dehbonei, E.F. Fuchs, “*Theoretical and Experimental Analysis of Photovoltaic Systems with Voltage and Current-Based Maximum Point Tracking*”, IEEE Transactions on Energy Conversion, Vol.17, No.4, pp.514-522, Dec. 2002, Journal Impact Factor: **4.6**, **Cited: Over 921+ times.**
2. S. Deilami, A.S. Masoum, P.S. Moses, **M.A.S. Masoum**, “*Real-Time Coordination of Plug-In Electric Vehicle Charging in Smart Grids to Minimize Power Losses and Improve Voltage Profile*”, IEEE Transactions on Smart Grid, Vol.2, No.3, pp.456-467, 2011, Journal Impact Factor: **10.5**, **Cited: Over 855+ times.**
3. E.F. Fuchs, **M.A.S. Masoum**, “*Power Quality in Electrical Machines and Power Systems*”, Elsevier, Academic Press, USA, Feb. 2008 (First Edition), 2015 (Second Edition), **Cited: Over 646+ times.**
4. A.S. Masoum, S. Deilami, P.S. Moses, **M.A.S. Masoum**, A. Abu-Siada, “*Smart Load Management of Plug-In Electric Vehicles in Distribution and Residential Networks with Charging Stations for Peak Shaving and Loss Minimization Considering Voltage Regulation*”, IET Proceedings on Generation, Transmission and Distribution, Vol.5, No.8, pp.877-888, 2011, Journal Impact Factor: **3.4**, **Cited: Over 331+ times.**
5. **M.A.S. Masoum**, M. Ladjevardi, A. Jafarian, E.F. Fuchs, “*Optimal Placement, Replacement and Sizing of Capacitor Banks in Distorted Distribution Networks by Genetic Algorithms*”, IEEE Transactions on Power Delivery, Vol.19, No.4, pp.1794-1801, Oct 2004, Journal Impact Factor: **4.4**, **Cited: Over 240+ times.**
6. M. Mohseni, S. Islam, **M.A.S. Masoum**, “*Impacts of Symmetrical and Asymmetrical Voltage Sags on DFIG-based Wind Turbines Considering Phase-Angle Jump, Voltage Recovery and Sag Parameters*,” IEEE Transactions on Power Electronics, Vol.26, No.5, pp.1587-1598, 2011, Journal Impact Factor: **7.2**, **Cited: Over 175+ times.**
7. **M.A.S. Masoum**, S. Jamali, N. Ghaffarzadeh, “*Detection and Classification of Power Quality Disturbances using Discrete Wavelet Transform and Wavelet Networks*”, IET Proceedings on Science, Measurement & Technology, Vol. 4, No.47, pp: 193-205, 2010, Journal Impact Factor: **1.9**, **Cited: Over 179+ times.**

8. M. Mohseni, S. Islam, **M.A.S. Masoum**, "Enhanced Hysteresis-Based Current Regulators in Vector Control of DFIG Wind Turbines," *IEEE Transactions on Power Electronics*, Vol.26, No.1, pp.223-234, 2011, Journal Impact Factor: **7.2**, **Cited: Over 155 times**.
9. **M.A.S. Masoum**, A. Jafarian, M. Ladjevardi, E.F. Fuchs, W.M. Grady, "Fuzzy Approach for Optimal Placement and Sizing of Capacitor Banks in the Presence of Harmonics", *IEEE Transactions on Power Delivery*, Vol.19, No.2, pp.822-829, April 2004, Journal Impact Factor: **4.4**, **Cited: Over 139+ times**.
10. X. Su, **M.A.S. Masoum**, P. Wolfs, "Optimal PV Inverter Reactive Power Control and Real Power Curtailment to Improve Performance of Unbalanced Four-Wire LV Distribution Networks", *IEEE Transactions on Sustainable Energy*, Paper: Vol.5, No.3, pp.967-977, 2014, Journal Impact Factor: **7.7**, **Cited: Over 136+ times**.

Published Journal Articles (135 Publications Including 64+ IEEE Transactions and IET Proceedings):

1. S.Y. Derakhshandeh, A. Ghiasian, **M.A.S. Masoum**, "A New Time-Decoupled Framework for PEVs Charging and Scheduling in Industrial Microgrids", *IEEE Transactions on Smart Grid*, **Journal Impact Factor: 10.5**, Vol.10, No.1, pp.568-577, 2019.
2. N. Aghanoori, **M.A.S. Masoum**, S. Islam, A. Abu-Siada, S. Nethery, "Improving Voltage of Remote Connection Using Wind-Solar Farms Equipped with New Voltage Control Strategy Based on Virtual Impedance Monitoring Enabled by IEC 61850 Communication", *IET Proceedings on Generation, Transmission and Distribution*, **Journal Impact Factor: 3.4**, Vol.13, No.11, pp.2199-2207, 2019.
3. A. Baniasadi, D. Habibi, O. Bass, **M.A.S. Masoum**, "Optimal Real-Time Residential Thermal Energy Management for Peak-Load Shifting with Experimental Variation", *IEEE Transactions on Smart Grid*, **Journal Impact Factor: 10.5**, Vol.42, No.1, pp.5587-5599, 2019.
4. A. Li, A. Abu-siada, **M.A.S. Masoum**, Z. Li, Y. Xu, X. Zhao, "A New Vibration Testing Platform for Electronic Current Transformers," *IEEE Transactions on Instrumentation & Measurement*, **Journal Impact Factor: 3.1**, Vol.68, No.3, pp.704-712, 2019.
5. M. Shafie-khah, P. Siano, J. Aghaei, **M.A.S. Masoum**, F. Li, J.P.S. Catalao, "Comprehensive Review of the Recent Advances in Industrial and Commercial DR", *IEEE Transactions on Industrial Informatics*, **Journal Impact Factor: 7.3**, Vol.15, No.7, pp.3757-3771, 2019.
6. Z. Moghaddam, I. Ahmad, D. Habibi, **M.A.S. Masoum**, "A Coordinated Dynamic Pricing Model for Temporal PEV Load Shifting to Reduce the Overlaps of Loads in Residential and Charging Station Networks", *IEEE Transactions on Transportation Electrification*, **Journal Impact Factor: 5.3**, Vol.5, No.1, pp.226-238, 2019.
7. J.P.S. Catalao, P. Siano, J. Contreras, G. Chicco, O. Erdinc, **M.A.S. Masoum**, J. Aghaei, F. Wang, F. Li, A. Bakirtzis, M. Parvania "Guest Editorial: Demand Side Management and Market Design for Renewable Energy Support and Integration, *IET Proceedings on Renewable Power Generation*, **Journal Impact Factor: 3.6**, Vol.13, No.6, pp.801-801, 2019.
8. C.K. Das, O. Bass, T.S. Mahmoud, G. Kothapalli, N. Mousavi, D. Habibi, **M.A.S. Masoum**, "Optimal Allocation of Distributed Energy Storage Systems to Improve Performance and Power Quality of Distributed Networks", *Applied Energy (Elsevier)*, **Journal Impact Factor: 7.9**, Vol.252, pp.1134-68, 2019.
9. C.K. Das, N. Mousavi, G. Kothapalli, **M.A.S. Masoum**, T.S. Mahmoud, O. Bass, "An Optimal Allocation Strategy of Distributed Energy Storage Systems to Improve Performance of Distribution Networks", *Journal of Energy Storage (Elsevier)*, **Journal Impact Factor: 3.5**, Accepted, In Press, 2019.
10. A.M. Shiddiq Yunus, M. Saini, A. Abu-Siada, **M.A.S. Masoum**, "Impact of SMES Unit on DC-Link Voltage of DFIG during Various Types and Level of Faults", *Przeglad Elektrotechniczny Journal*, **Journal Impact Factor: 0.2**, Vol.95, pp.121-126, 2019.
11. A.M. Shiddiq Yunus, A. Abu-Siada, **M.A.S. Masoum**, "Sag and Flicker Reduction using Hysteresis-Fuzzy Control Based SMES Unit, " *Canadian Journal of Electrical and Computer Engineering Measurement*, Vol.42, No.1, pp.52-57, 2019.
12. J.P.S. Catalao, P. Siano, F. Li, **M.A.S. Masoum**, J. Aghaei, "Guest Editorial Special Section on Industrial and Commercial Demand Response", *IEEE Transactions on Industrial Informatics*, **Journal Impact Factor: 7.3**, Vol.14, No.11, pp.5017-5019, 2018.
13. B. Naghibi, **M.A.S. Masoum**, S. Deilami "Effects of V2H Integration on Optimal Sizing of Renewable Resources in Smart Home based on Monte Carlo Simulations", *IEEE Power and Energy Technology Systems Journal*, **Journal Impact Factor: 1.4**, Vol.5, No.3, pp.73-84, 2018.
14. M. Moghbel, **M.A.S. Masoum**, A. Fereidouni, S. Deilami, "Optimal Sizing, Siting and Operation of Custom Power Devices with STATCOM and APLC Functions for Real-Time Reactive Power and Network Voltage Quality Control of Smart Grid", *IEEE Transactions on Smart Grid*, **Journal Impact Factor: 10.5**, Vol.9, No.6, pp.5564-5575, 2018.

15. N. Kishor, **M.A.S. Masoum**, A. Nayak, A. Srivastava, "Guest Editorial Special Section on Cloud Computing in Smart Grid Operation and Management", *IEEE Transactions on Industrial Informatics, Journal Impact Factor: 7.3*, Vol.14, No.3, pp.1207-1209, 2018.
16. A.S. Musleh, S.M. Muyeen, A. Al-Durra, I. Kamwa, **M.A.S. Masoum**, S. Islam, "Time-Delay Analysis of Wide-Area Voltage Control Considering Smart Grid Contingences in a Real-Time Environment", *IEEE Transactions on Industrial Informatics, Journal Impact Factor: 7.3*, Vol.14, No.3, pp.1242-1252, 2018.
17. M. Saleh, L. Meek, M. Abshar, **M.A.S. Masoum**, "Battery-Less Short-Term Smoothing of Photovoltaic Generation using Sky Camera", *IEEE Transactions on Industrial Informatics, Journal Impact Factor: 7.3*, Vol.14, No.2, pp.403-414, 2018.
18. A. Ashrafian, M. Mirsalim, **M.A.S. Masoum**, "An Adaptive Recursive Wavelet Based Algorithm for Real-Time Measurement of Power System Variables during Off-nominal Frequency Conditions", *IEEE Transactions on Industrial Informatics, Journal Impact Factor: 7.3*, Vol.14, No.3, pp.818-828, 2018.
19. O. Ameri Sianaki, **M.A.S. Masoum**, V. Potdar, "A Decision Support Algorithm for Assessing the Engagement of a Demand Response Program in the Industrial Sector of the Smart Grid", Elsevier Computer and Industrial Engineering Journal, Vol. 115, pp. 123-137, Jan. 2018.
20. S.D. Kermany, M. Joorabian, S. Deilami, **M.A.S. Masoum**, "Hybrid Islanding Detection in Microgrid with Multiple Connection Points to Smart Grids using Fuzzy-Neural Network", *IEEE Transactions on Power Systems, Journal Impact Factor: 6.8*, Vol.32, No.4, pp.2640-2651, 2017.
21. A. Ashrafian, M. Mirsalim, **M.A.S. Masoum**, "Application of a Recursive Phasor Estimation Method for Adaptive Fault Component Based Differential Protection of Power Transformers", *IEEE Transactions on Industrial Informatics, Journal Impact Factor: 7.3*, Vol.13, No.3, pp.1381-1392, 2017.
22. Ali S. Masoum, N. Hashemnia, A. Abu-siada, **M.A.S. Masoum**, S. Islam, "Online Transformer Internal Fault Detection Based on Instantaneous Voltage and Current Measurements Considering Impact of Harmonics," *IEEE Transactions on Power Delivery, Journal Impact Factor: 4.4*, Vol.32, No.2, pp.587-598, 2017.
23. K. Janfeshan, **M.A.S. Masoum**, "Hierarchical Supervisory Control System for PEVs Participating in Frequency Regulation of Smart Grids", *IEEE Power and Energy Technology Systems Journal, Journal Impact Factor: 1.4*, Vol.4, No.4, pp.84-93, 2017.
24. S.Y. Derakhshandeh, M. E. H. Golshan, M.S. Ghazizadeh, **M.A.S. Masoum**, "Stochastic Scenario-Based Generation Scheduling in Industrial Microgrids", International Transactions on Electrical Energy Systems (wileyonlinelibrary.com), Vol. 27, No. 11, Nov. 2017.
25. X. Su, **M.A.S. Masoum**, P. Wolfs, "Multi-Objective Hierarchical Control of Unbalanced Distribution Networks to Accommodate More Renewable Connections in the Smart Grid Era", *IEEE Transactions on Power Systems, Journal Impact Factor: 6.8*, Vol.31, No.5, pp.3924-3936, 2016.
26. N. Jayasekar, **M.A.S. Masoum**, P. Wolfs, "Optimal Operation of Distributed Energy Storage Systems to Improve Distribution Network Load and Generation Hosting Capability," *IEEE Transactions on Sustainable Energy, Journal Impact Factor: 7.7*, Vol.7, No.1, pp.250-261, 2016.
27. X. Su, **M.A.S. Masoum**, P. Wolfs, "PSO and Improved BSFS Based Sequential Comprehensive Placement and Real-time Multi-objective Control of Delta-connected Switched Capacitors in Unbalanced Radial MV Distribution Networks", *IEEE Transactions on Power Systems, Journal Impact Factor: 6.8*, Vol.31, No.1, pp.612-622, 2016.
28. A. Fereidouni, **M.A.S. Masoum**, K.M. Smedley "Supervisory Nearly Constant Frequency Hysteresis Current Control for Active Power Filter Applications in Stationary Reference Frame", *IEEE Power and Energy Technology Systems Journal, Journal Impact Factor: 1.4*, Vol.3, No.1, pp.1-12, 2016.
29. **M.A.S. Masoum**, S.M.H. Nabavi, "Hybrid Optimal Online-Overnight Charging Coordination of Plug-in Electric Vehicles in Smart Grid", *Elsevier Journal of Power Sources*, Vol.330, pp.7-17, 2016.
30. S. Hajforoosh, **M.A.S. Masoum**, S. Islam "Online Optimal Variable Charge-Rate Coordination of Plug-In Electric Vehicles to Maximize Customer Satisfaction and Improve Grid Performance," Electrical Power System Research (Elsevier), Vol.141, pp.407-420, 2016.
31. A. Fereidouni, **M.A.S. Masoum**, "Shunt Active Power Filter with Enhanced Dynamic Performance By means of Frequency-Locking Complex Adaptive Linear Combiner", *Electric Power Components and Systems Journal*, Vol.44, No.20, pp.2256-2270, 2016.
32. A. Fereidouni, **M.A.S. Masoum**, M. Moghbel, "Performance of LR-Type Solid-State Fault Current Limiter in Improving Power Quality and Transient Stability of Power Network with Wind Turbine Generators", *Elsevier International Journal of Electrical Power & Energy Systems*, Vol.74, pp.172-186, Jan. 2016.
33. N. Safitri, F. Shahnia, **M.A.S. Masoum**, "Coordination of Single-Phase Rooftop PVs in Unbalanced Three-Phase Residential Feeders for Voltage Profiles Improvement", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol. 12, No. 2, pp.1-14, 2015.
34. M.Y. Khamaira, A. Abu Siada, S.M. Islam, **M.A.S. Masoum**, "Improved Topology of Doubly Fed Induction Generator based Wind Energy Conversion System", *Australian Journal of Electrical & Electronics Engineering*, Accepted for publication, In Press, 2015.

35. Amir S. Masoum, S. Deilami, A. Abu-Siada, **M.A.S. Masoum**, "Fuzzy Logic Approach for Online Coordination of Charging Plug-In Electric Vehicles in Smart Grids," *IEEE Transactions on Sustainable Energy*, Vol.6, No.3, pp.1112-11121, 2015.
36. N. Safitri, F. Shahnia, **M.A.S. Masoum**, "Monte Carlo-Based Stochastic Analysis Results for Coordination of Single-Phase Rooftop PVs in Low Voltage Residential Networks", *Intelligent Industrial Systems Journal (Springer)*, Vol.1, No.4, pp.359-371, Dec. 2015.
37. S. Hajforoosh, **M.A.S. Masoum**, S. Islam "Real-Time Charging Coordination of Plug-In Electric Vehicles Based on Hybrid Fuzzy Discrete Particle Swarm Optimization," *Electrical Power System Research (Elsevier)*, Vol.128, pp.19-29, Nov. 2015.
38. A. Fereidouni, M.A.S. Masoum, M. Moghbel, "A new adaptive configuration of PID type fuzzy logic controller", *Engineering Letters, ISA Transactions (Elsevier)*, (2014), <http://dx.doi.org/10.1016/j.isatra.2014.11.010>, 2015.
39. M. Moghbel, **M.A.S. Masoum**, A. Fereidouni, "Decentralized Coordinated Charging of Plug-In Electric Vehicles in Unbalanced Residential Networks to Control Distribution Transformer Loading, Voltage Profile and Current Imbalance", *Intelligent Industrial Systems Journal (Springer)*, DOI 10.1007/s40903-015-0008-7, Vol.1, No.2, pp.141-151, Aug. 2015.
40. S.Y. Derakhshandeh, **M.A.S. Masoum**, M. E. H. Golshan, "Unit Commitment in Industrial Microgrids with Plug-In Electric Vehicles and PV Generation", *International Transactions on Electrical Energy Systems*, Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/etep.1913, Vol.25, No.7, pp.1349-1365, July 2015.
41. X. Su, **M.A.S. Masoum**, P. Wolfs, "Optimal PV Inverter Reactive Power Control and Real Power Curtailment to Improve Performance of Unbalanced Four-Wire LV Distribution Networks", *IEEE Transactions on Sustainable Energy*, Paper: Vol.5, No.3, pp.967-977, 2014.
42. M. Mesbah, P.S. Moses, S.M. Islam, **M.A.S. Masoum**, "Digital Implementation of a Fault Emulator for Transient Study of Power Transformers used in Grid Connection of Wind," *IEEE Transactions on Sustainable Energy*, Vol.5, No.2, pp.646-654, 2014.
43. X. Su, **M.A.S. Masoum**, P. Wolfs, "Comprehensive Optimal PV Inverter Control Strategy in Unbalanced Three-Phase Four-Wire LV Distribution Networks", *IET Proceedings on Generation, Transmission and Distribution*, Vol.8, No.11, pp.1848-1859, 2014.
44. N. Jayasekara, P. Wolfs, **M.A.S. Masoum**, "An Optimal Management Strategy for Distributed Storages in Distribution Networks with High Penetrations of PV", *Journal of Electric Power Systems Research (Elsevier)*, Vol. 116, pp. 147-157, 2014.
45. R. Rossi, **M.A.S. Masoum**, "Protection Coordination Issues With DFIG Wind Generation on Small Islanded Networks", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol. 11, No. 4, pp. 153-160, 2014.
46. R. Rossi, **M.A.S. Masoum**, "Utilization of DFIG on an Islanded Power Generation and Distribution System", *Journal of Energy and Power Engineering (ISSN 1934-8975, USA)*, Vol. 8, pp. 166-175, 2014.
47. A. Fereidouni, **M.A.S. Masoum**, T. Hosseini Mehr, M. Moghbel, "Improving Performance of Shunt Active Power Filter with Hysteresis-Based Direct Current Control using Particle Swarm Optimization", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol. 11, No. 4, 2014.
48. A. Fereidouni, M.A.S. Masoum, "Study on Adaptive Harmonic Extraction Approaches in Active Power Filter Applications", *Engineering Letters*, Vol.22, No.4, pp.209-214, 2014.
49. A.S. Masoum, N. Hashemnia, A. Abu-Siada, M.A.S. Masoum, S. Islam "Finite-Element Performance Evaluation of On-Line Transformer Internal Fault Detection Based on Instantaneous Voltage and Current Measurements", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol. 11, No. 4, 2014.
50. R. Rossi, M.A.S. Masoum, "The Effect of Wind Generation on an Islanded Network Based on Rotor Angle Dynamic Evaluation", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol. 11, No. 1, pp.119-125, 2014.
51. M.Y. Khamaira, A. Abu-Siada, S. Islam, **M.A.S. Masoum**, "A New Topology for Doubly Fed Induction Generator to improve the overall Performance of Wind Energy Conversion System", *Elixir Electrical Engineering Journal* vol. 73 pp. 26432-26435, August 2014.
52. S.Y. Derakhshandeh, A.S. Masoum, S. Deilami, **M.A.S. Masoum**, M. E. H. Golshan, "Coordination of Generation Scheduling with PEVs Charging in Industrial Microgrids", *IEEE Transactions on Power Systems*, Vol.28, No.3, pp.3451-4361, 2013.
53. S.Y. Derakhshandeh, M. E. H. Golshan, **M.A.S. Masoum**, "Profit Based Unit Commitment with Security Constraints and Fair Allocation of Cost Saving in Industrial Microgrids", *IET Proceedings on Science, Measurement & Technology*, Vol.7, No.6, pp.315-325, 2013.
54. A.M. Shiddiq Yunus, A. Abu-Siada, **M.A.S. Masoum**, "Application of SMES Unit to Improve DFIG Power Dispatch and Dynamic Performance during Intermittent Misfire and Fire-through Fault" *IEEE Transactions on Applied Superconductivity*, Vol.23, No.4, pp.5701712, 2013.
55. A. Abu-Siada, N. Hashemnia, S. Islam, **M.A.S. Masoum**, "Understanding Power Transformer Frequency Response Analysis Signatures," *IEEE Electrical Insulation Magazine*, Vol.29, No.3, pp.48-56, 2013.

56. S. Deilami, A.S. Masoum, **M.A.S. Masoum**, A. Abu-Siada, "Performance of Heuristic Optimization in Coordination of Plug-In Electric Vehicles Charging", IBIMA Publishing Journals, International Journal of Renewable Energy and Biofuels, USA, Vol. 2013, pp. 1-15, Article ID 898203, DOI: 10.5171/2013.898203, 2013.
57. O. Ameri Sianaki, **M.A.S. Masoum**, "A Multi-Agent Intelligent Decision Making Support System for Home Energy Management in Smart Grid: A Fuzzy TOPSIS Approach", Multiagent and Grid Systems- An International Journal (<http://iospress.metapress.com/content/a2u6216683534154/>), Vol.9, No.1, pp. 181-195, 2013.
58. A.S. Masoum, Sara Deilami, **M.A.S. Masoum**, A. Abu-Siada, "A Heuristic Approach for Coordination of Plug-In Electric Vehicles Charging in Smart Grid", CSCCanada, International Canadian Journal, Energy Science and Technology, Vol.5, No.2, pp.16-24, 2013.
59. A.M. Shiddiq Yunus, **M.A.S. Masoum**, A. Abu-Siada, "Application of SMES to Enhance the Dynamic Performance of DFIG during Voltage Sag and Swell," *IEEE Transactions on Applied Superconductivity*, Vol.22, No.4, pp.1-9, 2012.
60. P.S. Moses, **M.A.S. Masoum**, "Three-Phase Asymmetric Transformer Aging Considering Voltage-Current Harmonic Interactions, Unbalanced Nonlinear Loading, Magnetic Couplings and Hysteresis", *IEEE Transactions on Energy Conversion*, Vol.27, No.2, pp.318-327, 2012.
61. P. Juanuwattanukul, **M.A.S. Masoum**, "Increasing DG Penetration in Multiphase Distribution Networks Considering Grid Losses, Maximum Loading Factor and Bus Voltage Limits", *IET Proceedings on Generation, Transmission and Distribution*, Vol.6, No.12, pp.1262-1271, 2012.
62. A.M. Shiddiq Yunus, A. Abu-Siada, **M.A.S. Masoum**, "Improving Dynamic Performance of Wind Energy Conversion System using Fuzzy-Based Hysteresis Current Controlled SMES" *IET Proceedings on Power Electronics*, Vol.5, No.8, pp.1305-1314, 2012.
63. S. Hajforoosh, S.M.H. Nabavi, **M.A.S. Masoum**, "Coordinated Aggregated-Based Particle Swarm Optimization Algorithm for Congestion Management in Restructured Power Market by Placement and Sizing of Unified Power Flow Controller", *IET Proceedings on Science, Measurement & Technology*, Vol.6, No.4, pp.267-278, 2012.
64. S.M.H. Nabavi, A. Kazemi, **M.A.S. Masoum**, "Social Welfare Maximization - With Fuzzy Based Genetic Algorithm by TCSC and SSSC in Double-Sided Auction Market", Scientia Iranica, Transactions on Computer Science & Engineering and Electrical Engineering, <http://www.sciencedirect.com/science/article/pii/S1026309811002823>, Vol.19, No.3, pp.745-758, 2012.
65. S. Hajforoosh, S.M.H. Nabavi, and M.A.S. Masoum, "Optimal Particle Swarm Based Placement and Sizing of Static Synchronous Series Compensator to Maximize Social Welfare", Journal of Electrical Engineering & Technology, Vol.7, No.4, pp.501-512, 2012.
66. S. Deilami, A.S. Masoum, P.S. Moses, **M.A.S. Masoum**, "Real-Time Coordination of Plug-In Electric Vehicle Charging in Smart Grids to Minimize Power Losses and Improve Voltage Profile", *IEEE Transactions on Smart Grid*, Vol.2, No.3, pp.456-467, 2011.
67. M. Mohseni, S. Islam, **M.A.S. Masoum**, "Impacts of Symmetrical and Asymmetrical Voltage Sags on DFIG-Based Wind Turbines Considering Phase-Angle Jump, Voltage Recovery, and Sag Parameters," *IEEE Transactions on Power Electronics*, Vol.26, No.5, pp.1587-1598, 2011.
68. P.S. Moses, **M.A.S. Masoum**, H.A. Toliyat, "Impacts of Hysteresis and Magnetic Couplings on the Stability Domain of Ferroresonance in Asymmetric Three-Phase Three-Leg Transformers", *IEEE Transactions on Energy Conversion*, Vol.26, No.2, pp.581-592, 2011.
69. M. Mohseni, S. Islam, **M.A.S. Masoum**, "Enhanced Hysteresis-Based Current Regulators in Vector Control of DFIG Wind Turbines," *IEEE Transactions on Power Electronics*, Vol.26, No.4, pp.223-234, 2011.
70. M. Mohseni, S. Islam, **M.A.S. Masoum**, "Fault Ride-Through Capability Enhancement for Doubly Fed Induction Generators", *IET Proceedings on Renewable Power Generation*, Vol.5, No.5, pp.368-376, 2011.
71. A.S. Masoum, S. Deilami, P.S. Moses, **M.A.S. Masoum**, A. Abu-Siada, "Smart Load Management of Plug-In Electric Vehicles in Distribution and Residential Networks with Charging Stations for Peak Shaving and Loss Minimization Considering Voltage Regulation", *IET Proceedings on Generation, Transmission and Distribution*, Vol.5, No.8, pp.877-888, 2011.
72. A. Ulinuha, **M.A.S. Masoum**, S.M. Islam, "Hybrid Genetic-Fuzzy Algorithm for Volt/Var/THD Control of Distribution Systems with High Penetration of Nonlinear Loads", *IET Proceedings on Generation, Transmission and Distribution*, Vol.5, No.4, pp.425-439, 2011.
73. S. Hajforoosh, S.M.H. Nabavi, **M.A.S. Masoum**, "Maximizing Social Welfare in Double-Sided Auction Market by Placement and Sizing of TCSC using Coordinated Aggregation-Based Particle Swarm Optimization", International Review of Electrical Engineering, vol. 6, no. 5, pp. 2557-2568, 2011.
74. S.M.H. Nabavi, A. Kazemi, **M.A.S. Masoum**, "Congestion Management using Genetic Algorithm in Deregulated Power Environments", International Journal of Computer Applications, vol. 18, no. 2. pp. 19-23, March 2011.
75. M. Mohseni, S. Islam, **M.A.S. Masoum**, "Low and High Voltage Ride-Through of DFIG Wind Turbines Using Hybrid Current Controlled Converters", Electric Power Systems Research, Vol.81, No.7, pp. 1456-1465, 2011.
76. M. Mohseni, S. Islam, **M.A.S. Masoum**, "Variable-Band Vector-Based Hysteresis Current Regulator for DFIG Wind Turbines," *Electrical Power System Research*, vol. 81, no. 5, pp. 1151-1160, 2011.

77. S.M.H. Nabavi, **M.A.S. Masoum**, A. Kazemi, "A Fuzzy-Based Genetic Algorithm for Social Welfare Maximization by Placement and Sizing of SSSC", *Electric Power Components and Systems*, Vol.29, No.13, pp.1329-1352, 2011.
78. A.M. Shiddiq, A. Abu-Siada, **M.A.S. Masoum**, "Application of SMES Unit to Improve the Voltage Profile of the Power System with DFIG during Grid Dip and Swell," *International Journal of Advances in Engineering and Technology*, Vol. 1, No. 5, pp. 1-13, 2011. (<http://www.archives-ijaet.org/volume-1-issue-5.html>)
79. A. M. Shiddiq, A. Abu-Siada, **M.A.S. Masoum**, "Application of SMES Unit to Improve the Performance of Wind Turbine Conversion System", *Elixir, Electrical Engineering Online Journal*, Vol. 38, pp. 4315-4319, 2011.
80. M. Mohseni, M. Mesbah, S. Islam, **M.A.S. Masoum**, "Vector-Based Hysteresis Current Regulator for DFIG Wind Turbines under Non-Ideal Supply Conditions", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol.8, No.1, pp.27-38, 2011.
81. M. Mesbah, M. Mohseni S. Islam, **M.A.S. Masoum**, "A New Approach for Three Phase Rectification with Minimum Measurement and Computational Requirements for Wind Power Applications", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol.8, No.1, pp.17-26, 2011.
82. P. Juanuwattanakul, **M.A.S Masoum** "Bus Voltage Ranking for Unbalanced Three-phase Distribution Networks and Voltage Stability Enhancement," *Elixir on electrical engineering*, pp. 5976-5981, Dec 2011.
83. S.M.H. Nabavi, A. Kazemi, **M.A.S. Masoum**, "Social Welfare Improvement by TCSC using Real Code Based Genetic Algorithm in Double-Sided Auction Market", *Advances in Electrical and Computer Engineering*, (<http://www.aece.ro/current.php>), Vol.11, No.2, pp.99-106, 2011.
84. P. Moses, **M.A.S. Masoum**, H.A. Toliyat, "Dynamic Modeling of Three-Phase Asymmetric Power Transformers with Magnetic Hysteresis: No-Load and Inrush Conditions", *IEEE Transactions on Energy Conversion*, Vol.26, No.1, pp.1040-1047, Dec. 2010.
85. **M.A.S. Masoum**, P. Moses, "Impact of Balanced and Unbalanced Direct Current Bias on Harmonic Distortion Generated by Asymmetric Three-Phase Three-Leg Transformers", *IET Proceedings on Electric Power Application*, Vol. 4, No.7, pp: 507-515, 2010
86. **M.A.S. Masoum**, S. Jamali, N. Ghaffarzadeh, "Detection and Classification of Power Quality Disturbances using Discrete Wavelet Transform and Wavelet Networks", *IET Proceedings on Science, Measurement & Technology*, Vol. 4, No.47, pp: 193-205, 2010.
87. M. Mohseni, S. Islam, **M.A.S. Masoum**, "Using Equidistant Vector-Based Hysteresis Current Regulators in DFIG Wind Turbines" *Electric Power Systems Research*, Elsevier, Vol.81, No.5, pp.1151-1160, 2010.
88. S. Jamali, S.A. Mousavi, **M.A.S. Masoum**, "Improving Shunt Hybrid Filter Performance Through Reducing Control System Time Delay", *Australia Journal on Electrical & Electronic Engineering*, Vol.7, No.2, pp. 101-111, 2010.
89. S.M.H. Nabavi, **M.A.S. Masoum**, A. Kazemi, "An Optimal Transmission Congestion Management in Open Power Markets", *International Review of Automatic Control (Theory and Applications)*, Vol.3, No.4, pp. 242-431, July 2010.
90. **M.A.S. Masoum**, S.M.H. Nabavi, A. Kazemi, "Social Welfare Maximization in Double-Sided Auction Market by Placement and Sizing of TCSC using Fuzzy-Based Genetic Algorithm", *International Review of Electrical Engineering*, Vol. 5, No. 2, pp. 2392-2404, Oct. 2010.
91. P.S. Moses, **M.A.S. Masoum**, "Modeling Subharmonic and Chaotic Ferroresonance with Transformer Core Model Including Magnetic Hysteresis Effects," *WSEAS Transaction on Power Systems*, vol. 4, no. 12, pp. 361-371, 2009.
92. A.M.A. Haidar, A. Mohamed, M. Al-Dabbagh, A. Hussain, **M.A.S. Masoum**, "An Intelligent Load Shedding Scheme Using Neural Networks and Neuro-Fuzzy", *International Journal of Neural Systems*. Vol.19, No.6, pp. 473-479, 2009
93. M. Ladjevardi, **M.A.S. Masoum**, S.M. Islam "Time Domain Analysis of a Synchronous Generator in Distributed Power System", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol.5, No.3, pp.271-277, 2009.
94. A. Baktash, A. Vahedi, **M.A.S. Masoum**, "New Switching Table for Improved Direct Power Control of Three-Phase PWM Rectifier", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol.5, No.2, pp. 161-167, 2009.
95. M. Ladjevardi, **M.A.S. Masoum**, S.M. Islam "Power System Stability in the Presence of Harmonics", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, 2009.
96. **M.A.S. Masoum**, P. Moses, A.S. Masoum, "Derating of Asymmetric Three-Phase Transformers Serving Unbalanced Nonlinear Loads", *IEEE Transactions on Power Delivery*, Vol.23, No.4, pp.2033-2041, Oct. 2008.
97. M. Ladjevardi, **M.A.S. Masoum**, "Genetically Optimized Fuzzy Placement and Sizing of Capacitor Banks in Distorted Distribution Networks", *IEEE Transactions on Power Delivery*, Vol.23, No.1, pp.449-456, Jan 2008.
98. A. Ulinuha, **M.A.S. Masoum**, S.M. Islam, "Optimal Scheduling of LTC and Shunt Capacitors in Large Distorted Distribution Systems using Evolutionary-Based Algorithms", *IEEE Transactions on Power Delivery*, Vol.23, No.1, pp.434-441, Jan 2008.
99. S.M. Mosavi, **M.A.S. Masoum**, M. Kalantar, "Optimum Design and Modeling of Stand-Alone Hybrid PV-Wind System with Adaptive-Fuzzy Controller", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol.5, No.1, pp.65-74, 2008.
100. M. Ladjevardi, **M.A.S. Masoum**, S.M. Islam, "Operation of Synchronous Generator under the influence of Time and Space Harmonics", *Australian Journal of Electrical and Electronic Engineering (AJEEE)*, Vol.4, No.2, pp.179-188, 2008.

101. E.F. Fuchs, **M.A.S. Masoum**, "Torques in Induction Machines Due to Low-Frequency Voltage/Current Harmonics", International Journal of Power and Energy Systems, ACTA PRESS, USA, Vol.28, No.2, pp.212-221, 2008.
102. E.F. Fuchs, D. Roesler, **M.A.S. Masoum**, Closure on "Are Harmonic Recommendations According to IEEE and IEC Too Restrictive?", **IEEE Transactions on Power Delivery**, Vol.22, No.2, pp.1263-1265, April 2007.
103. **M.A.S. Masoum**, S.M. Mousavi Badejani, E.F. Fuchs, Closure on "Microprocessor-Controlled New Class of Optimal Battery Chargers for Photovoltaic Applications", **IEEE Transactions on Power Deliver**, Vol.22, No.2, pp.550-553, June 2007.
104. S.M.H. Nabavi, A. Gholami, A. Kazemi, **M.A.S. Masoum**, "Evaluation of Leakage Current Measurement for Site Pollution Severity Assessment", Leonardo Electronic Journal of Practices & Technology (ISSN 1583-1078), Issue 10, pp.39-54, Jan-June, 2007.
105. **M.A.S. Masoum**, A. Kazemi, S.M.H. Nabavi, "Optimal Control of Booster Phase Shifters using HVSO Pulse Width Modulation", Electronic Journal of Technical Acoustics (<http://www.ejta.org>), Vol. 9, April 2006.
106. A. Kazemi, S.M. Mosavi, **M.A.S. Masoum**, "Analysis and Control of Voltage Harmonics Generated by Thyristor Controlled Series Capacitors", Iranian Journal of Science & Technology, Vol.30, No.B2, 2006.
107. **M.A.S. Masoum**, A. Jafarian, M. Ladjevardi, E.F. Fuchs, W.M. Grady, Closure on "Fuzzy Approach for Optimal Placement and Sizing of Capacitor Banks in the Presence of Harmonics", **IEEE Transactions on Power Deliver**, Vol.20, No.2, pp.1214-1216, April 2005.
108. **M.A.S. Masoum**, M. Sarvi, "A New Fuzzy-Based Maximum Power Point Tracker for Photovoltaic Applications", International Journal of Engineering, Iran, Vol.1, No.1, pp.28-35, Jan. 2005.
109. **M.A.S. Masoum**, M. Sarvi, "Design, Simulation and Implementation of a Fuzzy-Based Maximum Power Point Tracker under Variable Insolation and Temperature Conditions", Iranian Journal of Science and Technology, Vol.29, No.B1, pp.127-132, 2005.
110. A. Kazemi, M. Ladjevardi, **M.A.S. Masoum**, "Optimal Selection of SSSC Based Damping Controller Parameters for Improving Power System Dynamic Stability using Genetic Algorithms", Iranian Journal of Science & Technology, Vol.29, No.B1, pp.1-10, 2005.
111. **M.A.S. Masoum**, A. Jafarian, M. Ladjevardi, E.F. Fuchs, W.M. Grady, "Fuzzy Approach for Optimal Placement and Sizing of Capacitor Banks in the Presence of Harmonics", **IEEE Transactions on Power Delivery**, Vol.19, No.2, pp.822-829, April 2004.
112. E.F. Fuchs, D. Roesler, **M.A.S. Masoum**, "Are Harmonic Recommendations According to IEEE and IEC Too Restrictive?", **IEEE Transactions on Power Delivery**, Vol.19, No.4, pp.1775-1786, Oct 2004.
113. **M.A.S. Masoum**, E.F. Fuchs, H. Dehbonei, Closure on "Theoretical and Experimental Analyses of Photovoltaic Systems with Voltage and Current-Based Maximum Power Point Tracking", **IEEE Transactions on Energy Conversion**, Vol.19, No.3, pp. 652- 653, Sep. 2004.
114. **M.A.S. Masoum**, S. M. Mousavi Badejani, and E.F. Fuchs, "Microprocessor-Controlled New Class of Optimal Battery Chargers for Photovoltaic Applications", **IEEE Transactions on Energy Conversion**, Vol.19, No.3, pp.599-606, Sep 2004.
115. **M.A.S. Masoum**, Discussion of "Measured Efficiency Improvements of Induction Motors with Thyristor/Triac Controllers", **IEEE Transactions on Energy Conversion**, Vol.19, No.3, pp. 647-647, Sep. 2004.
116. **M.A.S. Masoum**, M. Ladjevardi, A. Jafarian, E.F. Fuchs, "Optimal Placement, Replacement and Sizing of Capacitor Banks in Distorted Distribution Networks by Genetic Algorithms", **IEEE Transactions on Power Delivery**, Vol.19, No.4, pp.1794-1801, Oct 2004.
117. **M.A.S. Masoum**, M. Ghassemi, M.Sarvi, "Electrical and Thermal Analysis of Ni-Cd Batteries", Amirkabir Journal of Science & Technology, Iran, Vol.15, No.57-A, pp. 1-10, 2004.
118. **M.A.S. Masoum**, M. Ladjevardi, E.F. Fuchs, "Optimal Sizing and Placement of Fixed and Switched Capacitor Banks Under Nonsinusoidal Operating Conditions", International Journal of Engineering, Iran, Vol.15, No.4, pp.9-18, 2004.
119. S.A. Mosavi, **M.A.S. Masoum**, "Mitigation of Temporary and Sustained Power Quality Disturbances by UPQC", International Journal of Engineering, Iran, Vol.15, No.3, pp.109-120, 2004.
120. **M.A.S. Masoum**, M. Ladjevardi, E.F. Fuchs, W. Grady, "Application of Local Variations and Maximum Sensitivities Selections for Optimal Placement of Shunt Capacitor Banks Under Nonsinusoidal Operating Conditions", International Journal of Electrical Power and Energy Systems, UK, Vol.26, No.10, pp.761-769, 2004.
121. **M.A.S. Masoum**, Discussion of "Measurement of Lambda-I Characteristics of Asymmetric Three-Phase Transformers and Their Applications", **IEEE Transactions on Power Delivery**, Vol.18, No. 2, pp. 641-641, April 2003.
122. **M.A.S. Masoum**, M. Ghassemi, "Electrical and Thermal Analysis of an Environmentally Safe Microprocessor-Based Ni-Cd Fast Battery Charger", International Journal of Environmentally Conscious Design & Manufacturing (ECDM), USA, Vol.11, No. 1, 2003.
123. **M.A.S. Masoum**, E.F. Fuchs, "Derating of Anisotropic Transformers under Nonsinusoidal Conditions", International Journal of Electrical Power and Energy Systems, UK, Vol.25, No.1, pp.1-12, Jan, 2003.
124. **M.A.S. Masoum**, S.M. Mosavi, "Analysis and Construction of a DC/DC Buck Converter with PWM and Sliding Mode Controls", International Journal of Engineering, Iran, Vol.14, No.1, pp. 17-29, Feb. 2003.

125. **M.A.S. Masoum**, H. Dehbonei, E.F. Fuchs, “*Theoretical and Experimental Analysis of Photovoltaic Systems with Voltage and Current-Based Maximum Point Tracking*”, **IEEE Transactions on Energy Conversion**, Vol.17, No.4, pp.514-522, Dec. 2002.
126. **M.A.S. Masoum**, A. Badri, “*Derating of Induction Watt-hour Meters under Nonsinusoidal Operating Conditions*”, International Journal of Engineering, Iran, Vol.13, No.4, pp. 101-111, 2002.
127. **M.A.S. Masoum**, H. Dehbonei, “*Detailed Analysis of Microprocessor Current-Based Maximum Power Point Tracking for Photovoltaic Systems*”, International Journal of Engineering, Iran, Vol.13, No.1, pp. 91-105, 2002.
128. **M.A.S. Masoum**, S.M. Mosavi, “*Analysis of Photovoltaic Systems with DC/DC Converters using PWM and Sliding Controllers*”, International Journal of Renewable Energy Eng., Australia, Vol.4, No.1, pp. 429-438, 2002.
129. M. Ghassemi, A. Keshavarz, **M.A.S. Masoum**, “*Effect of Orbital Height and Geometry on Temperature Distribution of a Small Satellite*”, International Journal of Engineering, Iran, Vol.13, No.3, pp. 161-171, 2002.
130. **M.A.S. Masoum**, H. Dehbonei, “*A New Method for using Maximum Power of Photovoltaic Systems*”, International Journal of Engineering Science, Iran, Vol.10, No.1, pp.63-80, 1998.
131. **M.A.S. Masoum**, E.F. Fuchs, “*Transformer Magnetizing Current in Harmonic Power Flow*”, **IEEE Transactions on Power Delivery**, Vol.9, No.1, pp.10-20, Jan. 1994.
132. A. Fardoun, E.F. Fuchs, **M.A.S. Masoum**, “*Experimental Analysis of DC Bucking Motor Blocking GIC*”, **IEEE Transactions on Power Delivery**, Vol.9, No.1, pp.88-99, Jan. 1994.
133. **M.A.S. Masoum**, E.F. Fuchs, D. Roesler, “*Large Signal Nonlinear Model of Anisotropic Transformers for Nonsinusoidal Operation, Part two: Magnetizing and Core Loss Currents*”, **IEEE Transactions on Power Delivery**, Vol.6, No.4, pp.1509-1516, Oct. 1991.
134. **M.A.S. Masoum**, E.F. Fuchs, D. Roesler, “*Impact of Nonlinear Loads on Anisotropic Transformers*”, **IEEE Transactions on Power Delivery**, Vol.6, No.4, pp.1781-1788, Oct. 1991
135. E.F. Fuchs, **M.A.S. Masoum**, D. Roesler, “*Large Signal Nonlinear Model of Anisotropic Transformers for Nonsinusoidal Operation, Part one: Lambda-I Characteristic*”, **IEEE Transactions on Power Delivery**, Vol.6, No.1, pp.174-186, Jan. 1991.