

Khaled E. Addoweesh

Publications

1. Syed Arslan Abbas Rizvi, Khaled Addoweesh, Abdelrehman El-Leathy, Hany Al-Ansary, "Sun Position Algorithm for Sun Tracking Applications", accepted in Industrial Electronics Society, IECON 2014 - 40th Annual Conference of the IEEE, Oct. 29 - Nov. 1, 2014.
2. Hadeed Sher, Ali Murtaza, Khaled Addoweesh, Kamal Haddad, Marcello Chiaberge, "A New Irradiance Sensorless Hybrid MPPT Technique for Photovoltaic Power Plants", accepted in Industrial Electronics Society, IECON 2014 - 40th Annual Conference of the IEEE, Oct. 29 - Nov. 1, 2014.
3. Hadeed Ahmed Sher, Ali F Murtaza, Khaled E Addoweesh, Marcello Chiaberge, "A two stage Hybrid Maximum Power Point Tracking Technique for Photovoltaic Applications", Power and Energy Society General Meeting (PES), 2014 IEEE, 27-31 July 2014
4. Sher, Hadeed Ahmed; Addoweesh, Khaled E; Khan, Yasin; ",Effect of short circuited DC link capacitor of an AC–DC–AC inverter on the performance of induction motor,Journal of King Saud University-Engineering Sciences, 2014.
5. Hamadi, A; Rahmani, S.; Al-Haddad, K.; Addoweesh, K., "Micro grid based PMSG feeding isolated loads," Applied Power Electronics Conference and Exposition (APEC), 2014 Twenty-Ninth Annual IEEE, pp.3160,3165, 16-20 March 2014.
6. Al-Shamma'a A. A. and Addoweesh K. E. (2014), Techno-economic optimization of hybrid power system using genetic algorithm, Int. J. Energy Res., 38; pages 1608–1623, doi: 10.1002/er.3191, ISI impact factor: 2.737
7. Eltamaly, Ali M., Khaled E. Addoweesh, Umar Bawa, and Mohamed A. Mohamed. "Economic Modeling of Hybrid Renewable Energy System: A Case Study in Saudi Arabia." *Arabian Journal for Science and Engineering* 39, no. 5 (2014): 3827-3839., ISI impact factor: 0.385, link
8. Murtaza, AF.; Sher, H.A; Chiaberge, M.; Boero, D.; De Giuseppe, M.; Addoweesh, K.E., "Comparative analysis of maximum power point tracking techniques for PV applications," *Multi Topic Conference (INMIC), 2013 16th International* , vol., no., pp.83,88, 19-20 Dec. 2013
9. Murtaza, AF.; Sher, H.A; Chiaberge, M.; Boero, D.; De Giuseppe, M.; Addoweesh, K.E., "Optimization of the perturb and observe maximum power point tracker for a distributed photovoltaic system," *Multi Topic Conference (INMIC), 2013 16th International* , vol., no., pp.77,82, 19-20 Dec. 2013
10. Sher, H.A; Murtaza, AF.; Addoweesh, K.E.; Chiaberge, M., "An intelligent off-line MPPT technique for PV applications," *Systems, Process & Control*

(ICSPC), 2013 IEEE Conference on , vol., no., pp.316,320, 13-15 Dec. 2013.

11. Vahedi, Hani; Al-Haddad, Kamal; Ounejjar, Youssef; **Addoweesh, Khaled**, "Crossover Switches Cell (CSC): A new multilevel inverter topology with maximum voltage levels and minimum DC sources," Industrial Electronics Society, IECON 2013 - 39th Annual Conference of the IEEE, pp.54,59, 10-13 Nov. 2013
12. Hamadi, Ab.; Rahmani, S.; **Addoweesh, Khaled**; Al-Haddad, K., "A modeling and control of DFIG wind and PV solar energy source generation feeding four wire isolated load," Industrial Electronics Society, IECON 2013 - 39th Annual Conference of the IEEE, pp.7778,7783, 10-13 Nov. 2013
13. Noman, AM.; Addoweesh, K.E.; Mashaly, H.M., "Simulation and dSPACE hardware implementation of the MPPT techniques using buck boost converter," *AFRICON, 2013* , vol., no., pp.1,9, 9-12 Sept. 2013
14. Noman, AM.; Addoweesh, K.E.; Mashaly, H.M., "An intelligent FLC method for tracking the maximum power of photovoltaic systems," *AFRICON, 2013* , vol., no., pp.1,8, 9-12 Sept. 2013
15. Umar Bawah, Khaled E. Addoweesh, Ali M. Eltamaly, " Comparative Study of Economic Viability of Rural Electrification Using Renewable Energy Resources versus Diesel Generator Option in Saudi Arabia" J. Renewable Sustainable Energy 5, 042701 (2013), DOI:10.1063/1.4812646, link, ISI impact factor: 1.51
16. Ali M. Eltamaly, **Khaled E. Addoweesh**, Umar Bawah, Mohamed A. Mohamed, "New Software for Hybrid Renewable Energy Assessment for Ten Locations in Saudi Arabia "Journal of Renewable and Sustainable Energy 5, 033126 (2013), DOI:10.1063/1.4809791, link, , ISI impact factor: 1.51
17. Hadeed Ahmed Sher, Khaled E. Addoweesh and Yasin Khan (2013). Harmonics Generation, Propagation and Purging Techniques in Non-Linear Loads, An Update on Power Quality, Dr. Dylan Lu (Ed.), ISBN: 978-953-51-1079-8, InTech, DOI: 10.5772/53422. Available from:
<http://www.intechopen.com/books/an-update-on-power-quality/harmonics-generation-propagation-and-purging-techniques-in-non-linear-loads>
18. Abdullah M. Noman, Khaled E. Addoweesh, and Hussein M. Mashaly, "DSPACE Real-Time Implementation of MPPT-Based FLC Method," International Journal of Photoenergy, vol. 2013, Article ID 549273, 11 pages, 2013. doi:10.1155/2013/549273, ISI impact factor: 1.769
<http://www.hindawi.com/journals/ijp/2013/549273/>
19. Hadeed Ahmed Sher, **Khaled E Addoweesh**, Yasin Khan, Ali F. Murtaza, "Harmonic Analysis of Inverter fed Induction Motor under faulted DC link Capacitor", The 15th IEEE STEM conference, Dhahran, Saudi Arabia on Dec. 17-20, 2012
20. Abdullrahman A. Al Shamma'a, **Khaled E. Addoweesh**, "Optimum Wind Turbine Matching with Wind regime in Saudi Arabia", The 15th IEEE STEM conference, Dhahran, Saudi Arabia on Dec. 17-20, 2012

21. Ali F Murtaza, Hadeed Ahmed Sher, Chiaberge M, Boero D, De Giuseppe M and **Khaled E Addoweesh**, "A Novel Hybrid MPPT Technique for Solar PV Applications Using Perturb & Observe and Fractional Open Circuit Voltage Techniques" Proceedings of 15th International Conference on Mechatronics – Mechatronika 2012, Prague, Czech Republic, December 5-7, 2012, p 274-281
22. Hadeed Sher, Khaled Addoweesh, "Micro-Inverters - Promising Solutions in Solar Photovoltaics", Energy for Sustainable Development, 16 (2012) 389–400, ISI impact factor: 1.624, link
23. Hadeed Sher, Khaled Addoweesh, "Power storage options for hybrid electric vehicles - A survey", Journal of Renewable and Sustainable Energy, 4, 052701 (2012), ISI impact factor: 1.239, link
24. Abdurahman alshamaa, **Khaled E. Addoweesh**, "Optimum Sizing of Hybrid PV/Wind/Battery/Diesel System Considering Wind turbine Parameters Using Genetic Algorithm", the 2012 IEEE International Conference on Power and Energy (PECON 2012) 2 - 5 December 2012.
25. Noman, Abdullah M., Addoweesh, Khaled E.; Mashaly, Hussein M.; , "A fuzzy logic control method for MPPT of PV systems," IECON 2012 - 38th Annual Conference on IEEE Industrial Electronics Society, pp.874-880, 25-28 Oct. 2012, Montreal Canada. link
26. Sher, Hadeed Ahmed; Addoweesh, Khaled E; Khan, Yasin; Kashif, Syed Abdul Rahman; , "Performance of inverter fed induction motor under open circuit DC link capacitor," IECON 2012 - 38th Annual Conference on IEEE Industrial Electronics Society , vol., no., pp.651-655, 25-28 Oct. 2012, Montreal Canada. link
27. Abdullah M. Noman, Khaled E. Addoweesh, and Hussein M. Mashaly , A Fuzzy Logic Control Method for MPPT of PV Systems, IECON 2012 - 38th Annual Conference on IEEE Industrial Electronics Society, Montreal Canada from 25 to 28 October 2012
28. Abdullah Noman, **Khaled Addoweesh**, Hayder Algalban, Maximum Power Point Tracking of Photovoltaic Systems Using Two Different Methods, Workshop on Power Electronics for Industrial Applications and Renewable Energy Conversion PEIA2011, 3-4/11/2011.
29. Hadeed Sher, **Khaled Addoweesh**, Yasin Khan, Effect of DC Link Capacitor Failure on Free Wheeling Diodes of Inverter Feeding an Induction Motor, Workshop on Power Electronics for Industrial Applications and Renewable Energy Conversion PEIA2011, 3-4/11/2011.
30. Abdullrahman A. Al-Shamma'a , **Khaled E. Addoweesh** , Ali Eltamaly, " Optimum Wind Turbine Site Matching for Three Locations in Saudi Arabia ", Advanced Materials Research, Vols. 347-353 (2012) pp. 347-353, Oct. 2011, <http://www.scientific.net/AMR.347-353.2130>
31. Abdullrahman A. Al Shamma'a, **Khaled E. Addoweesh**, Ali M. Eltamaly, " Optimum Wind Turbine Site Matching for Three Locations in Saudi Arabia", 2011 International Conference on Energy, Environment and Sustainable Development

(EESD 2011), Shanghai, China, Oct. 2011.

32. Umar Bawah, Khaled E. Addoweesh, Ali M. Eltamaly, " Economic Modeling of Site-Specific Optimum Wind Turbine for Electrification Studies ", Advanced Materials Research, Vols. 347-353 (2012) pp. 1973-1986, Oct. 2011, <http://www.scientific.net/AMR.347-353.1973>
33. Umar Bawah, **Khaled E. Addoweesh**, Ali M. Eltamaly, " Economic Modeling of Site-Specific Optimum Wind Turbine for Electrification Studies", International Conference on Energy, Environment and Sustainable Development (EESD 2011), Shanghai, China, Oct. 2011.
34. Hadeed Ahmed Sher, Zahir J Paracha, Yasin Khan, **Khaled Addoweesh**, " Fault Analysis of an Inverter Fed Induction Motor Under dc Link Capacitor Short Circuit Condition", 5th global conference on Power Control and optimization 2011 (PCO 2011), 1-3/6/2011
35. **K. E. Addoweesh**, "Total Harmonic Distortion Minimization in a Three-Phase AC Chopper" accepted for publication in Journal of King Abdulaziz University [Engineering Sciences]
36. M. A. Abdel-Halim and **K. Addoweesh**, " Control of Single Phase Induction Motor Using AC Chopper" Iastead International Conf. On Applied Simulation and Modeling, Banff, Canada, July 24-26, 2000.
37. S. Foda, M. Abdel-Rahman, and **K. Addoweesh**, " Fault Detection in Large AC Machines", The 13th International Conf. On Microelectronics, Rabat, Morocco, pp. 193-196, Oct. 29-31, 2001.
38. **Khaled E. Addoweesh**, "Dynamic Model of Saturated Induction Motor Using PSPICE" [arabic] Journal of King SAUD , Vol. 11, Eng. Sci.(2), pp. 29-48, 1999.
39. **K. Addoweesh**, "Time Ratio Controlled Three-Phase AC Chopper", Journal of King SAUD University, Vol. 11, Eng. Sci.(2), pp. 233-250, 1999.
40. **K. E. Addoweesh**, "Microprocessor Controlled AC Choppers", Research Report No. E07/07/14, Research Center, College of Eng., KSU, 1998
41. **Khaled E. Addoweesh**, " AC Chopper with Harmonic Elimination and Phase Control", European Trans on Power Eng., Germany, Vol.7, No. 2, pp.115-120, Mar/Apr 1997
42. **Khaled E. Addoweesh**, "Dynamic Model of an Induction Motor Using PSPICE"[arabic] Proc. of the 4th Saudi Engineering Conf., Jeddah, pp.49-56, Nov 1995
43. A. L. Mohamadein and **K. A. Addoweesh**, "Harmonic Minimization in a Chopper-Type AC Voltage Controller" , Journal of King SAUD University, Vol. 6, Eng. Sci(2), pp. 199-216, 1994.
44. **K. E. Addoweesh** and M. S. Al-Khalidi, " AC Chopping Technique With Phase and Voltage Control" IEEE Internat. Symp. on Ind. Electronics ISIE'93

- Conf. Rec., Budapest, Hungary, pp. 684-688, June 1993.
45. **K. Addoweesh**, "An Exact Analysis of an Ideal Static AC Chopper" Int.J. Electronics, England, London, Vol. 75, No. 5, pp.999-1013, 1993
 46. **Ad'doweesh, K.E.**, Mohamadein, A.L., and Al-Ghalban, H.A., "Time-Ratio Control of Chopper Type AC Voltage Regulators", Journal of King SAUD University, Vol. 3, Eng. Sci(I), pp. 19-43, 1991.
 47. **Ad'doweesh, K.E.**, and Mohamadein, A.L., "Microprocessor-Based Harmonic Elimination in Chopper Type AC Voltage Regulators", IEEE Transactions on Power Electronics, Vol.5, No.2, April 1990, pp. 191-200.
 48. **K. Ad'doweesh**, "Microprocessor Based Power Factor Improvement of Induction Motor", Journal of King SAUD University: Engineering Sciences, Vol. 2, No. 1, 1990.
 49. Mohamadein, A.L. and **Ad'doweesh, K.E.**, "Evaluation of the Performance of Chopper-Type AC Voltage Controller", International Journal of Electronics, Vol.67, No.4, pp. 669-683, Oct 1989,.
 50. **K. Ad'doweesh**, M. S. Simiai and S. E. Haque "Power Factor Improvement of Induction Motor Using Microprocessor Controlled FC-TCR Compensator", Journal Engineering Sciences, King SAUD University:, Vol. 15, No. 2, 1989.
 51. **Ad'doweesh, K.E.**, Mohamadein, A.L., and Al-Ghalban, H.A., "Microprocessor Based Controller for AC Chopper", Proc. of the 11th National Computer Conf., Dhahran, Mar 1989, pp. 483-493.
 52. **K. E. Addoweesh**, W. Shepherd and L. Hulley, "Induction Motor Control Speed Control Using Microprocessor Based PWM Inverter", IEEE Transactions on Industrial Electronics, Vol.IA-36, No.4, Nov. 1989, pp.516-522.
 53. **K. Ad'doweesh**, "Microprocessor Based AC voltage control using GTO thyristors", Proc. of ISMM Inter. Sympos. Mini and Micro and Their Applications, Lugano, Switzerland, June 1987, pp. 83-86.

RESEARCH PROJECTS:

Projects funded by Research Center, College of Engineering:

- Three Phase AC Voltage Regulators
- Control of Single Phase IM
- Dynamic Modeling of AC Motors for Simulation Programs
- AC Chopper Controlled by Microprocessor

Projects funded by National Plan for Science and Technology and Innovation

- PI, Economic Evaluation of Renewable Energy Options for Rural Electrification and Farms in Saudi Arabia, 1/1/2010-30/6/2012, funded by NPST

- CO-PI, Piezoelectric Generator for Self-Powered Micro/Nano devices, 1/1/2011 -30/12/2012,funded by NPST