Electrical Engineering

	Year 2013
Conference Papers	
1.	R. Salim, H. Noura, A. Fardoun. Parameter Identification of 3kW PEM Fuel Cell System for Domestic Use in the UAE Using Genetic Algorithms. The 4th International Conference on Power Engineering, Energy and Electrical Drives, POWERENG-2013, Istanbul, Turkey, 13 – 17 May 2013.
2.	C. Zhahoui, H. Noura, T.B. Susilo, Y. Al Younes. Engineering Implementation on Fault Diagnosis for Quadrotors based on Nonlinear Observer. The 25th Chinese Control and Decision Conference (CCDC 2013), Guiyang, China, May 25-27, 2013.
3.	M. Jama, A. Wahyudie, A. Assi, H. Noura. Controlling Heaving Wave Energy Converter Using Function- Based Model Predictive Control Technique. The 25th Chinese Control and Decision Conference (CCDC 2013), Guiyang, China, May 25-27, 2013.
4.	C. Zhaohui, H. Noura, Y. Al Younes. Robust Fault Estimation on a Real Quadrotor UAV using Optimized Adaptive Thau Observer. The 2013 International conference on Unmanned Aircraft Systems, ICUAS'13. Atlanta, USA, May 28-31, 2013.
5.	C. Zhaohui, H. Noura. A Composite Fault Tolerant Control based on Fault estimation for Quadrotor UAVs. The 8th IEEE Conference on Industrial Electronics and Applications (ICIEA 2013), Melbourne, Australia, 19-21 June 2013.
6.	R. Salim, H. Noura, A. Fardoun. A Parameter Identification Approach of a PEM Fuel Cell Stack Using Particle Swarm Optimization. ASME 2013 11th Fuel Cell Science, Engineering and Technology Conference, Minneapolis, USA, 14-19 July, 2013.
7.	A. Wahyudie, M. Abdi Jama, A. Assi, H. Noura. Sliding Mode Control for Heaving Wave Energy Converter. The 2013 IEEE Multi-Conference on Systems and Control (MSC 2013), Hyderabad, India, August 28 – 30, 2013.
8.	A.R. Merheb, H. Noura, F. Bateman. Passive Fault-Tolerant Control of Quadrotor UAV Using Regular and Cascaded Sliding Mode Controllers. The 2nd International Conference on Control and Fault-Tolerant Systems, Nice, France, October 9-11, 2013.
9.	C. Zhaohui, H. Noura. An Adaptive Thau Observer for Estimating the Time-varying LOE Fault of Quadrotor Actuators. The 2nd International Conference on Control and Fault-Tolerant Systems, Nice, France, October 9-11, 2013.
10.	Y. Al Younes, H. Noura, A. Rabhi, A. El Hajjaji, N. Al Hussien. Sensor Fault Detection and Isolation in Quadrotors Using Nonlinear Identity Observer Approach. The second International Conference on Control and Fault-Tolerant Systems, Nice, France, October 9-11, 2013.
11.	R. Salim, H. Noura, A. Fardoun. A Review on Fault Diagnosis tools of the Proton Exchange Membrane Fuel Cell. The second International Conference on Control and Fault-Tolerant Systems, Nice, France, October 9-11, 2013.

- 12. Qurban Memon, "Emergency Alert and Location Identification in Absence of GPS Systems", Proceedings of sixth International Conference on Sensors, Melaka, Malaysia, 27-29 August 2013.
- R.S.Bano, R. Ramzan," COTS Based Multichannel FM receiver and Recorder using SDR Concept" IEEE International Conference on Electronics, Circuits, and Systems (ICECS), Abu-Dhabi, UAE, December 8-11, 2013.
- O. Siddiqui, A. Nauroze, R. Ramzan, and O. M. Ramahi," Tunneling of Electromagnetic Energy through Wires in Guided Media,"in Proc., the 2013 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting in Orlando, Florida, USA, July 7-12, 2013.
- A. Nauroze, O. Siddiqui, R. Ramzan, and O. M. Ramahi, "Dielectric Sensing based on Energy Tunneling in Wire-loaded Microstrip Cavities," IEEE META'13, the 4th International Conference on Metamaterials, Photonic Crystals and Plasmonics, Sharjah, UAE, March 18-22, 2013.
- Ala A. Hussein "Capacity Fade Estimation in Electric Vehicles Li-ion Batteries using Artificial Neural Networks", IEEE Energy Conversion Congress & Expo (ECCE) Proceedings, pp. 677-681, Denver, Colorado, USA, September 15-19, 2013.
- 17. Ala A. Hussein and Issa Batarseh "Energy Management for a Grid-tied Photovoltaic-Wind-Storage System—Part II: Operation Strategy", to be presented at the IEEE Power and Energy Society (PES) General Meeting, Vancouver, British Columbia, Canada, July 21-25, 2013.
- 18. Razan Najm, Mousa Hussein, Ahmed Ayesh, " A Study of the Surface Plasmon Enhancement using ARC on Thin Film Si Solar Cell performance ", the 10th HONET-CNS International Conference , Maqusa, Cyprus, 11-13 Dec., 2013.
- Razan Najm, Mousa Hussein, Ahmed Ayesh, "Design Consideration for Plasmonic Solar Cells Based on Ag Nanoparticles", the fourth International Conference on Metamaterials, Photonic Crystals and Plasmonics META, April 2013, Sharjah, UAE.
- 20. Razan Najm, Mousa Hussein, Ahmed Ayesh, "Characteristic of Plasmonic Solar Cells absorption efficiency based on Ag Nanoparticles", The 5th International Workshop on Advanced Materials (IWAM-2013), February 24-26, 2013, Ras Al Khaimah, UAE.
- H. El-Hag, A.M. Gaouda, S. H. Jayaram and Saeed Ul-Haq, "Detecting Turn Insulation Failures in Motor Coils Using Ground Current Signals," Accepted at the IEEE First International Conference on Condition Assessment Techniques in Electrical Systems (IEEE CATCON2013), 6 -8 December 2013, Kolkata, India.
- 22. A. M. Gaouda, Khaled Shuaib, Mohammed Abdel-Hafez, Nasser Aljuhaishi, Mahmoud Alahmad and Hamid Sharif "Conserving Energy in UAE Buildings: Demand Side Management and Methods for Experiencing Energy," Accepted at the 7th IEEE GCC Conference and Exhibition (IEEE-GCC2013), 17-20 November 2013, Doha, Qatar.
- 23. A. M. Gaouda, "Adaptive Partial Discharge Monitoring System For Future Smart Grids," Accepted at the 39th Annual Conference of the IEEE Industrial Electronics Society, (IECON 2013) 10th -13th of November 2013, Austria Center, Vienna, Austria.

- A. M. Gaouda, A.M. Abdrabou and Abdulrahman Dahir, "Developing Educational Smart Grid Laboratory, Part 1: Upgrading Stage," The IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE2013), 26-29 August 2013, Bali, Indonesia.
- 25. A. Wahyudie, M. A. Jama, A. Assi, and H. Noura, "Sliding Mode and Fuzzy Logic Control for Heaving Wave Energy Converter", IEEE Conference on Decision and Control, 2013.
- 26. A. Wahyudie, M. A. Jama, A. Assi, and H. Noura, "Sliding Mode Control for Heaving Energy Converter", IEEE Multiconferences on System and Control, 2013.
- 27. M. A. Jama, A. Wahyudie, A. Assi, and H. Noura, "Model Predictive Control Approach for Maximum Power Capture of Heaving Wave Energy Converter", IEEE Conference on Decision and Control, 2013.
- 28. M. A. Jama, A. Wahyudie, A. Assi, and H. Noura, "Controlling Heaving Wave Energy Converter using Function-Based Model Predictive Control Technique", Chinese Decision and Control Conference, 2013.
- 29. Ghazal Nabovati, Ebrahim Ghafar-Zadeh, Maryam Mirzaei, Giancarlo Ayala-Charca, Falah Awwad, and Mohamad Sawan, "Fully Integrated CMOS Capacitive Sensor for Lab-on-Chip Applications," The 2014 IEEE International Symposium on Circuits and Systems (ISCAS Bahareh Gholamzadeh, Ebrahim Ghafar-Zadeh, Falah Awwad, and Mohamad Sawan, "Piezoresistive Cantilever Platform for Label-free Detection of Molecules," 5th IEEE Latin American Symposium on Circuits and Systems (LASCAS 2014), Santiago, Chile, February Ghazal Nabovati, Ebrahim Ghafarzadeh, Falah Awwad, and Mohamad Sawan, "A Sigma Delta ISFET Readout Circuit for Lab-on-Chip Applications," 11th IEEE International NEWCAS Conference, Paris, France, June 16-19, 2013.
- Falah Awwad, Ahmad Ayesh, and Sarah Awwad, "Are Laptops Distracting Educational Tools in Classrooms," 13th International Educational Technology Conference (IETC 2013), Kuala Lumpur, Malaysia, May 13-15, 2013.
- 31. E. Ghafar-Zadeh, B. Gholamzadeh, M.Sawan, and F. Awwad, "Toward implantable Glucometer: Design, Modeling and Experimental Results," 35th Annual International Conference of the the IEEE Engineering in Medicine and Biology Society IEEE-EMBC 2013, July 3-7, Osaka, Japan.
- 32. Uzma Mushtaq, Osman Hasan, and Falah Awwad, "PNOC: Implementation on Verilog for FPGA," The ninth IEEE International conference on Innovations in Information Technology (Innovations'09), March 17-19, 2013, Al Ain, UAE.
- 33. R. Salim, H. Noura, A. Fardoun, "A review on fault diagnosis tools of the proton exchange Membrane Fuel Cell", International Conference on Control and Fault-Tolerant Systems (SysTol), France, October 2013.
- 34. Abbas A. Fardoun, Nasrullah Khraim, Esam H. Ismail, Ahmad J. Sabzali and Mustafa A. Al-Saffar, "Bridgeless High Power Factor Buck-Converter Operating in Discontinuous Capacitor Voltage Mode", IEEE Energy Conversion Congress and Exposition, Phoenix, pp.5328-5334, September 2013.
- 35. Nasrullah Khraim, Abbas A. Fardoun and Esam H. Ismail," Large and Small Signal Analysis for Bridgeless High PFC Converter Operating in DCVM", International Conference on Renewable Energies and Power Quality (ICREPQ'13), Bilbao-Spain, March 2013.
- 36. R. Salim, H. Noura, A. Fardoun, "Parameter Identification of 3kW PEM Fuel Cell System for Domestic Use in the UAE Using Genetic Algorithms", Proceedings of the IEEE 4th International Conference on Power Engineering, Energy and Electrical Drives, Istanbul Turkey, 2013.

- R. Salim, H. Noura, A. Fardoun, "A Parameter Identification Approach Of A PEM Fuel Cell Stack Using Particle Swarm Optimization", Proceedings of the ASME 2013 11th Fuel Cell Science, Engineering and Technology Conference, Minneapolis – MN, USA, 2013.
- 38. Ali H. Assi, Hassan A.N. Hejase, "Research by Undergraduate Engineering Students, "Proceedings of the 9th World Congress on Engineering Education (WCEE2013), Beirut Lebanon, Oct. 24- 25, 2013.
- Hassan A.N. Hejase, Ali H. Assi, H. M. Noura and Rabih Rammal, "Enhancing Awareness on Renewable Energy Through Students' Competitions
 – Case Study, UAE University," Proceeding of the International Conference on Renewable Energy Research and Applications (ICRERA), Madrid, Spain, Oct. 20-23, 2013 (ISBN: 978-1-4799-1464-7/13).
- 40. Ali Assi , Maitha Al-Shamisi , Hassan Hejase and Ahmad Haddad, "Prediction of Global Solar Radiation in UAE Using Artificial Neural Networks," Proceeding of the International Conference on Renewable Energy Research and Applications (ICRERA), Madrid, Spain, Oct. 20-23, 2013 (ISBN: 978-1-4799-1464-7/13).
- 41. Hassan A.N. Hejase and Ali H. Assi, "Global and Diffuse Solar radiation in The United Arab Emirates," International Conference on Energy and Agriculture Engineering (ICEAE2013), Hong Kong, July 5-7, 2013.
- 42. RF Capacitive Piezoelectric Displacement Extraction: Mahmoud Al Ahmad, ICST2013, New Zealand.
- 43. Exit Exam as Academic Indicator: Mahmoud Al Ahmad and Ali Al Marzouqi, to be presented ICEEE, Todz, Poland, 2013.
- 44. Mohammed Abdel-Hafez, Omkalthoum Al Bashir, and Khalid Shuaib, "On the Channel Capacity of Opportunistic Spectrum Access in Rayleigh Fading Channels," presented at CRCN2013, International Workshop on Cognitive Radio Communications and Networks in conjunction with the 5th International Conference on Ubiquitous and Future Networks from July 2 to July 5, 2013 in Da Nang, Vietnam.
- 45. Mariam Alnuaimi, Khalid Shuaib, and Mohammed Abdel-Hafez, "Clustering Protocols in WSN for Border Monitoring," presented at the WMNC'2013 IFIP/IEEE Wireless and Mobile Networking Conference to be held in Dubai, UAE, from 23th to 25th April 2013.
- 46. Ahmed Gaouda, Khaled Shuaib, Mohammed Abdel-Hafez, Mahmoud Alahmad, Nasser Aljuhaishi, Hamid Sharif, "Conserving Energy in UAE Buildings: Demand Side Management and Methods for Experiencing Energy," submitted to IEEE GCC Conference and Exhibition 2013, 17th to 20th of November 2013 at Doha, Qatar.
- 47. M.S. Laghari & G.A. Khuwaja, "Scheduling Techniques for Parallel Implementation of Wear Particle Recognition Algorithms", Conference Proceedings, "The Third International Conference on Digital Information Processing and Communications (ICDIPC 2013)", Dubai, UAE, January 30 February 1, 2013, pp. 439-453.
- 48. Gulzar A. Khuwaja & Mohammad S. Laghari, "Compressed mammograms for breast cancer detection", Conference Proceedings, "The 3rd International Conference on Current and Future Trends of Information and Communication Technologies in Healthcare (ICTH)", Niagara Falls, Canada, October 21-24, 2013.
- 49. Saleha Almheiri and Hend Alqamzi. Data Link Layer Security Protocols in Wireless Sensor Networks: A Survey. The 2013 IEEE International Conference on Networking Sensing and Control, Paris-Evry, France, April 10- April 12, 2013.

- Sarah Madi and Hend Al Qamzi. A Survey on Realistic Mobility Models for Vehicular Ad Hoc Networks (VANETs). The 2013 IEEE International Conference on Networking Sensing and Control, Paris-Evry, France, April 10- April 12, 2013.
- 51. Y. Al Younes, A. Drak, H. Noura, A. Rabhi, A. El Hajjaji. Quadrotor Position Control Using Cascaded Adaptive Integral Backstepping Controllers. 2014 International Conference on Aerospace and Mechanical Engineering (AME 2014), Bangkok, Thailand, April 13 14, 2014.
- 52. R.S.Bano, R. Ramzan," COTS Based Multichannel FM receiver and Recorder using SDR Concept" IEEE International Conference on Electronics, Circuits, and Systems (ICECS), Abu-Dhabi, UAE, December 8-11, 2014.
- 53. Zahi M. Omer, Ahmed M. Alameri, Abbas A. Fardoun and Ala A. Hussein "Comparison of Discharge Performance of 12V/150Ah Gel and AGM Sealed Lead-acid Batteries in Stand-alone PV-based Systems in UAE", to be presented at the 2014 International Conference of Renewable Energies and Power Quality (ICREPQ'14), Córdoba, Spain, April 7-10, 2014.
- 54. Alaa N. Hail, Boshra A. Alshujaa, Waad K. Albeiey, Ala A. Hussein and Abbas A. Fardoun "Design Considerations of Digitally Controlled PV Battery Chargers", to be presented at the 3rd International Conference on Renewable Energy Generation and Application (ICREGA'14), Al Ain, UAE, March 2-5, 2014.
- 55. Ala A. Hussein and Issa Batarseh "Energy Management for a Grid-tied Photovoltaic-Wind-Storage System—Part I: Forecasting Models", to be presented at the 3rd International Conference on Renewable Energy Generation and Application (ICREGA'14), Al Ain, UAE, March 2-5, 2014.
- 56. Khaled Shuaib, Farag Sallabi, Mohammad Abdul-Hafez, A. M. Gaouda, "Distributed Generation for Distribution Network Voltage Enhancement and Energy Loss Reduction," The 2014 IEEE ISGT Asia Conference, May 20 23, 2014, Kuala Lumpur, Malaysia.

Books

Edited Books

1. Qurban Memon, Distributed Network Intelligence, Security and Applications, Taylor and Francis, CRC Press, 2013.

Book Chapters

Hassan A.N. Hejase, Ali H. Assi and Maitha H. Al Shamisi, "Use of Empirical Regression and Artificial Neural Network Models for Prediction of Global Solar Radiation in Dubai, UAE." In: Dincer, Ibrahim; Colpan, Can Ozgur; Kadioglu, Fethi (Eds.) Causes, Impacts, and Solutions to Global Warming, pp. 61-86, Springer Publishers, 2013. ISBN 978-1-4614-7587-3, DOI 10.1007/978-1-4614-7588-0_4.

Patents

- 1. Indradeep Sen, Thorsten Kammler, Andreas Knorr, Akif Sultan, "Self-aligned silicidation for replacement gate process", US patent 8,361,870, GLOBALFOUNDRIES, patent granted January 29, 2013
- 2. Akif Sultan and Indradeep Sen, "Semiconductor devices having stressor regions and related fabrication methods", US patent 8,426,278, GLOBALFOUNDRIES, patent granted April 23, 2013.
- 3. Akif Sultan, "Method of fabricating multi-fingered semiconductor devices on a common substrate", US patent 8,497,179, GLOBALFOUNDRIES, patent granted July 30, 2013.