**Dr. Kamel Saleh**

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**CURRENT POSITION**

**Lecturer at Electrical Engineering Department, An- Najah National University, January 2011.**

**EDUCATION**

• **PhD. Electrical Engineering, Nottingham University, United Kingdom, Sept 2006 – Feb 2010**

My research has resulted in some major advancements in the field of motor control; the application of the “Fundamental SVPWM Method for Sensorless Control” to both permanent magnet motors and induction motors has received considerable interest from the international research community, as is evidenced by my recent journal and leading conference publications, and is now attracting interest from companies looking to use it for commercial development. My PhD studies extended the application to high power drives using multi-level converters, and again this is receiving commercial interest.

Over the period of my time at Nottingham, I have developed technical expertise in the design, build and test of power electronic systems, especially concerned with advanced inverters (and their control) for electrical machines. This includes hardware design and software implementation of these systems on DSP/FPGA based controllers. Please see the publications

• **MSc. Electrical Engineering**, **Nottingham University, United Kingdom, Sept 2005 – Sept 2006**

**• BSc. Electrical Engineering, An-Najah National University, Palestine, 1998 – 2003**

**WORK EXPERIENCE**

**Assistant Professor, Electrical Engineering Department, An-Najah National University, Nablus, West Bank, Palestine. January 2011 - Present.**

**Research Fellow, Power Electronic, Control and Machine Research Group, Nottingham University, UK, Jan 2010 – Dec 2010**

• Developing an auto-commissioning procedures for sensorless control of Permanet Magnet AC motors to be adopted in industrial drives.

• Assisting in conference papers reviewing and initial decision making.

• Coordination and supporting service for external research collaborators.

**Engineer in the planning section at Palestinian Energy Authority in Anabta / WestBank**

• design low and medium voltage electrical networks for Palestinian villages

**Certifications or professional registrations**

• Paper reviewer for IET journal of power electronics in the field of multilevel inverters and their modulation techniques.

**ADDITIONAL CAREER EXPERIENCE - PART TIME**

**• Lab demonstrator at the school of electrical engineering at Nottingham university, UK ,2006-2009.**

**SOCIAL AND ORGANIZATIONAL SKILLS**

• I was elected as an organiser of social events in Palestinian society at Nottingham university in UK .

• I was a member of rural developing society in West-Bank .

**COMPUTER SKILLS**

***Languages*** : Pascal , C++ , Visual C++ ,Visual Basic, Avenue for ArcView,VHDL.
***Applications*** : Microsoft Office (Excel , WinWord , PowerPoint ,Ms-Projcct ..etc) ,Code Composer and DSP , FPGA, Matlab/Simulink , PCB layout, SABER.

**TRAINING**

1. ***Training at Palestinian Telecommunications company (PALTEL).****Trainer: PALTEL Staff*.
*Aug2002 -Dec2002.*
2. ***(A+) Course at Information technology center(AMRA )-Nablus***.
*Trainer:Eng.Nizar Shana’a*.
*Feb 2001-June 2001*
3. ***Cources In MCSA at AMRA***
*a- Windows 2000 Professional b- Windows 2000 Server
Trainers: Eng.Nizar Shana’a
Feb 2001-June 2001 (40 hour)*
4. ***MATLAB Course at AMRA*** *Trainer: Dr .Allam Mousa.
 Feb 2001- march200l (20 hour).*
5. ***Networking Course at Khadouri***
 *Trainer: Khadori Staff.
 Oct 2003 - March 2004 (100 hour).*
6. ***SCADA and ENERGY MANAGEMENT training course***
 *Trainer: Canadian lecturer at Palestinian Energy Authority .
 Oct 2005 (30 hour).*

**AWARDS**

* **EPSRC** **full doctoral scholarship** award at Nottingham University, UK, PhD 2006-2009.
* **Hani Qaddomi scholarship,** partial scholarship award**,** MSc. Electrical engineering, 1998.
* **Palestinian Ministry of Higher Education,** Partial Scholarship award, BSc. Electrical engineering, 1998.

**COURSES TAUGHT:**

**BACHELOR COURSES:**

* Electronics 1
* Electrical Machines
* Programmable logic controller (PLC)
* Control of electrical machines(Drives)
* Control systems
* Control Lab
* Power electronics
* Electrical installations

**MASTER LEVEL COURSES:**

* Electrical Drives
* Power system,Power Electronic and Drives Lab

**Master Thesis Supervision:**

* Tolerant Active Power Filter with Active and Reactive Power Injecition Capability Using Multi-Level Inverter Photovoltaic Arrys.
* Design of an Efficient and a Fault Tolerant Solar Power Water Pumping System Using a four-leg A symmetric Multi-Level Inverter.
* بعنوان''Design of Active Power Filter with Active and Reactive Power Injecition Capability Using Multi-Level Inverter Photovoltaic Arrys.

**Master Thesis Examiner:**

* Powering of Radio Communication Stations in Remote Areas by Solar PV: Optimal System Design and Economics

**PUBLICATIONS**

**REFEREED JOURNALS:**

* HUA, Y., SUMNER, M., ASHER, G., GAO, Q. and SALEH, K., “ [Improved sensorless control of a permanent magnet machine using fundamental pulse width modulation excitation](http://dx.doi.org/10.1049/iet-epa.2010.0108)”, IET Electric Power Applications. April 2011 -- Volume 5, Issue 4, p.359–370.
* SALEH ,K. SUMNER, M., and ASHER, “Sensorless control of induction motors using multi-level converters”. Power Electronics, , IET Electric Power Applications. Feb. 2012-- Volume 5, Issue 2, p. 269 – 279

##### SALEH ,K. SUMNER, M, “[Modelling and Simulation of a Sensorless Control of a True Asymmetric Cascade H-Bridge Multilevel Inverter PMSM Drives](https://www.researchgate.net/publication/302321420_Modelling_and_Simulation_of_a_Sensorless_Control_of_a_True_Asymmetric_Cascade_H-Bridge_Multilevel_Inverter_PMSM_Drives?ev=prf_pub)”, International Journal of Power Electronics and Drive Systems (IJPEDS) Vol 7, No 2.p. 397-415. June 2016.

* SALEH ,K. SUMNER, M,” [Modelling and simulation of a sensorless control of four-leg inverter PMSM drives in case of single-phase open circuit fault](https://www.researchgate.net/publication/281711430_Modelling_and_simulation_of_a_sensorless_control_of_four-leg_inverter_PMSM_drives_in_case_of_single-phase_open_circuit_fault?ev=prf_pub)”.  Turkish Journal of Electrical Engineering and Computer Sciences.Volume 24 , p. 3807 – 3820. June 2016

##### SALEH ,K. SUMNER, M .’’[Modelling and Simulation of a Sensorless Control of Five Phase PMSM Drives using Multi Dimension Space Vector Modulation](http://www.journal.uad.ac.id/index.php/TELKOMNIKA/article/view/3996). TELKOMNIKA (Telecommunication, Computing, Electronics and Control). ***Vol 14, No 4*** p. 1269-1283

* SALEH ,K. SUMNER, M.’’Sensorless Auto Commissioning of the Position Phase Shift Compensation in Permanent Magnet Machines. An-Najah Journal for Research-A-Natural Sciences. Vol 31, No 1, Feb 2017

##### SALEH ,K. SUMNER, M.’’ [Sensorless Control of a Fault Tolerant PMSM Drives in Case of Single-phase Open Circuit Fault](http://www.iaesjournal.com/online/index.php/IJPEDS/article/view/11463)’’. International Journal of Power Electronics and Drive Systems (IJPEDS). Vol 7, No 4. Dec 2016

# SALEH ,K. SUMNER, M. ‘’ Sensorless Speed Control of Five-Phase PMSM Drives with Low Current Distortion. Engineering Journal (Springer).Accepted in 2017

**BOOK CHAPTER:**

**REFEREED CONFERENCES:**

* SALEH, K., SUMNER, M., ASHER, G. and GAO, Q, “Sensorless control of high power induction motors using multilevel converters”  [5th IET International Conference on](http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=5510043) Power Electronics, Machines and Drives (PEMD 2010), 19-21 April 2010
**Page(s):** 1 – 6, UK
* SALEH, K., SUMNER, M., QIANG, G. and ASHER, G, “A novel technique for sensorless control of high power induction motors using multilevel converters” [Energy Conversion Congress and Exposition (ECCE), 2010 IEEE](http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=5606065), **Page(s):** 492 – 499. 12-16 Sept. 2010. USA
* SALEH, K., SUMNER, M., ASHER, G.; TOMASINI, M.; GAO, Q,” Low Speed Sensorless Control of an Induction Motor Fed by Multilevel Converter to Reduce Current Distortion”, 13th European Conference on Power Electronics and Applications, 2009. EPE '09. Page(s): 1 - 10.
* SALEH, K., SUMNER, M.,” Position estimation in a true asymmetric cascade H-bridge multilevel inverter”, 14th European Conference on Power Electronics and Applications, 2011. EPE '11. Page(s): 1 - 10.
* SALEH, K., SUMNER. **“**Sensorless control of Fault Tolerant PMSM drives in case of single-phase open circuit fault’’. [2016 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM)](http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=7513173). Pages: 528 – 534. June 2016.
* SALEH, K., SUMNER. ‘’Sensorless control of five-phase PMSM drives using multi-dimension space vector modulation’’. IEEE INTERNATIONAL CONFERENCE ON POWER ELECTRONICS, DRIVES AND ENERGY SYSTEMS.Pages 1-10. December 2016.

**REFERENCES**

Available upon request