



Name: Dr. Mohammed Abdul-Niby

Rank: Associate Professor - Electrical & Electronics Engineering

Title: Dean - College of Engineering

Personal Information

Nationality:	British
AU Joining Date:	01 Mar 2011
E-Mail Address:	m.nibi@au.edu.kw

Professional Information

Education:	- PhD. in Microelectronics/ School of Electronic Engineering, Information Technology and Mathematics/ University of Surrey, 1998, UK. - MSc. In Electrical Engineering/ College of Engineering/ University of Basrah, Basrah, Iraq, 1980. - BSc. in electronics and communications/ College of Engineering/ University of Basrah, Basrah, Iraq, 1977.
Specialization:	Electronic Engineering / Microelectronics
Current Academic Position:	Associate Professor - Electrical & Electronics Engineering
Current Professional Positions:	NA
Previous Administrative Position Held:	Acting Dean- College of Engineering Manager-Curriculum Development-College of Engineering Head of Electrical Engineering department
Previous Academic Positions Held:	Assistant Professor - Electrical & Electronics Engineering
Fellowships And Honors:	- Chartered Professional Engineer - Engineers Australia – - MIEAust CPEng / Leadership and Management. - Member of the Editorial board - Electronic Journal of Applied Statistical Analysis - CDIO membership- CDIO Leaders - Used to be a member of Centre for Osmosis Research & Applications within the Fluids Research Centre, University of Surrey/ Surrey/United Kingdom.

	- Cert IV in training and assessments.
Teaching Experience:	29 years, in Iraq, United Kingdom, and Kuwait
Industrial And Technical Experience:	7 years of industrial experience in engineering and IT, in United Kingdom.
Research Interest:	Signal processing, Microelectronics and Renewable Energies. Current research interest includes simulation modeling of semiconductor devices, characterization of implanted silicon, water purification and renewable energies.
Research Grants:	IIER Project Grant
Research and Publications including Journal and Books:	- 19 Scientific papers in very well-known international journals. - 14 Conference papers. - 3 Articles <u>Publications:</u> 1. "Generation of Constant-Envelope Signals Using a Sine-Wave Crossing Technique", R.S. Fyath, M. M. Abdul-Niby, International Journal of Electronics, 1985, Vol.59, No.3. 2. "Wideband Frequency-Invariant Phasemeter with Lead-Lag Indication", M. M. Abdul-Niby, R.S. Fyath, International Journal of Electronics, 1987, Vol.62. No.1. 3. "An Improved Clarke and Wright Algorithm to Solve the Capacitated Vehicle Routing Problem", Louis Caccetta, Mamoon Alameen, Mohammed Abdul-Niby, ETASR - Engineering, Technology & Applied Science Research, Vol. 3, No. 2, 2013, 413-415. 4. "An Optimization Approach to Predict Crude Oil Prices", Mamoon Alameen, Amer Aladad, Reza Taheri, Mohamed Abdul Nibi, Ali Radiy, International Journal of Economics, Finance and Management, Vol. 2, No. 6, September 2013. 5. "Analysis and Investigation of a Two-Diode Solar Cell Using MATLAB/ Simulink", Tarek Selmi, Mohammed Abdul-Niby, Mamoon Alameen, International Journal of Renewable Energy Research, Vol. 4, No. 1, March 2014,99-102. 6. "A Combinatorial Optimization Approach to Solve the Synchronous Optical Network (SONET) Problem", Mamoon Alameen, Mohammed Abdul-Niby, Tarek Selmi, Sadeq Damrah, Global Journal of Enterprise Information System, Volume 6, Issue 2, April-June 2014. 7. "Solar Photovoltaic Trends and Challenges in Kuwait", International Journal of Engineering and Technical Research (IJETR), Tarek Selmi, Hania

Baitie, **Mohamed Abdul-Niby**, and Hidab Hamwi, ISSN: 2321-0869, Volume-2, Issue-9, September 2014, 116-120.

8. "A Mathematical Approach to Optimize Seed Selection Process in Permaculture", Mamoon Alameen, **Mohammad Abdul-Niby**, Tarek Selmi and Sadeq Damrah, International Journal of Recent Scientific Research, Vol. 6, Issue, 1, 2424-2427, January 2015.

9. "A Hands-Free Obstacle Detection and Avoidance System", **Mohammed Abdul-Niby**, Mamoon Alameen, Otmar Irscheid, Mohamad Baidoun, Hadi Mourtada, ETASR - Engineering, Technology & Applied Science Research, Vol. 5, No. 3, 2015, 801-804.

10. "Improved Genetic and Simulating Annealing Algorithms to Solve the Traveling Salesman Problem Using Constraint Programming", Mamoon Alameen, **Mohammed Abdul-Niby**, Ayad Salhie, Ali Radhi, ETASR - Engineering, Technology & Applied Science Research, Vol. 6, No. 2, 2016, 927-930.

11. "A simple Phase Shifting technique for an Injection Locked Oscillator", **Mohammed Abdul-Niby**, Mamoon Alameen, Hania Baitie, ETASR - Engineering, Technology & Applied Science Research, Vol. 6, No. 6, 2016, 1303-1306.

12. "Hopf Bifurcation Control of Subsynchronous Resonance Utilizing UPFC", Majdi M. Alomari, Mohammad S. Widyan, **Mohammed Abdul-Niby**, Alireza Gheitasi, ETASR - Engineering, Technology & Applied Science Research, Vol. 7, No. 3, 2017, 1588-1594.

13. "Automated Weather Station for Real Time & Local Measurements", Mohammed Farhat, **Mohammed Abdul-Niby**, Mohammed Abdullah, Abdelbaset Nazzal, ETASR - Engineering, Technology & Applied Science Research, Vol. 7, No. 3, 2017, 1615-1618.

14. "A Compact Quint-Band Bandpass Filter Based on Stub-Loaded Resonators", Mohammed Farhat, Jagadissen Munisami, **Mohammed Abdul-Niby**, Michel Nahas, Majdi Alomari, ETASR -Engineering, Technology & Applied Science Research, Vol. 7, No. 3, 2017, 1694-1698.

15. "A Compact Tri-Band Bandpass Filter with High Out-of-Band Rejection", Mohammed Farhat, **Mohammed Abdul-Niby**, Michel Nahas, Majdi Alomari, ETASR -Engineering, Technology & Applied Science Research, Vol. 7, No. 4, 2017, 1786-1790.

16. "Three-Dimensional Finite Element Analysis of Thermal Behavior of Supercapacitors", **Mohammed Abdul Niby**, Khalil Khanafer, and Ali Al-Masri,

Special Topics & Reviews in Porous Media — An International Journal, 11(1):49–60 (2020).

17. “Towards a flexible 2+2 hands-on engineering technology curriculum”, Hassan Salti, Mohamad Farhat, **Mohammed Abdul Niby** & Isam Zabalawi, World Transactions on Engineering and Technology Education, Vol.19, No.4, 2021.

18. “Techno-economic analysis and optimization of hydrogen production from renewable hybrid energy systems: Shagaya renewable power plant-Kuwait”, Wisam K. Hussam, El Manaa Barhoumi, **M. Abdul-Niby**, Gregory J. Sheard, ELSEVIER, International Journal of Hydrogen Energy, 58 (2024) 56–68

19. ‘Enhanced thermal management strategy for supercapacitors using phase change materials: A numerical investigation’, Ali AlMasri, Khalil Khanafer, **Mohammed Abdul-Niby**, ELSEVIER, International Communications in Heat and Mass Transfer, 158, November 2024, 107856.

Conferences:

1- “Variable Voltage Control Circuits”, **M. M. Abdul-Niby**, A. Abdul-Sattar, R.A. Taha, Proceedings of the JIEEEEC, 85 Jordan International Electrical and Electronic Engineering Conference 28th April-1st May 1985.

2- “The Lifetime Distribution of Excess Carriers in H⁺ Ion Implanted Silicon by Photoconductive Frequency Resolved Spectroscopy”, **Niby, M.A.**, Daiqing, L., Lourenco, M.A., Nejim, A., Homewood, K.P., & Hemment, P.L.F. (1996), XI International Conference on Ion Implantation Technology (IIT 1996), Texas-Austin USA. Proceedings of the 11th International Conference on Ion Implantation Technology, Ishidida E (Ed). IEEE, Piscataway, New Jersey, USA, 1997, pp668-671.

3- “Optimizing the Synchronous Optical Network (SONET)”, **M. Abdul-Niby**, M Al-Ameen, “2012 International Conference of the Honam Mathematical Society (HMS) June 15-17, 2012, Jeju city, South Korea”.

4- "Toward Constructing an Effective Method to Predict Oil Prices", Mamoon Alameen, **Mohammed Abdul-Niby** and Ali Radhi, 5th International Conference on Applied Operational Research – ICAOR'13 Lisbon, Portugal, July 29-31, 2013, Proceedings, Vol.5, 120-124.

5- “P&O MPPT Implementation Using MATLAB/Simulink”, Tarek Selmi, **Mohamed Abdul-Niby**, Laura Devis, Andrew Davis, 2014 Ninth International Conference on Ecological Vehicles and Renewable Energies, EVER'2014, March 25-27, 2014, Monte-Carlo (Monaco).

6- "Investigation and Sizing of a Solar Power Station at the Australian College of Kuwait", Tarek Selmi, Hania El-Kanj Baitie, and **Mohamad Abdul-Niby**, 2015 Tenth International Conference on Ecological Vehicles and Renewable Energies, EVER'2015, 31March-2April, 2015, Monte-Carlo (Monaco).

7- "Engineering Education Reform and Learning Outcomes Assessment", Prof. Isam Zabalawi, **Dr. Mohammed Abdul-Niby**, Dr. Martin Jaeger, Dr. Mohamad Omar, Dr. Mamoon Alameen, 2019 CDIO Asian Regional Meeting Conferences, Dalian, China, Dalian Neusoft University of Information, March 25- 27, 2019.

8- "Engineering Education: Institutionalization, Internalization, And Graduate Attributes", Hassan Salti, Fadi Alkhatib, Sayed Soleimani, **Mohammed Abdul-Niby**, Isam Zabalawi, Helene Kordahji, Proceedings of the 15th International CDIO Conference, Aarhus University, Aarhus, Denmark, June 25 – 27, 2019.

9- "Experiential learning and its impact on graduate attributes and employability", Alameen M., **Abdul-Niby M.**, Omar M., Alkhatib F., Salti H., Salhia A., Zabalawi I., Proc. of the World Engineers Convention, Melbourne, Australia (2019).

10- "Tablet-Aided Lecturing Effectiveness: Case of The Australian College of Kuwait", M. Zaki, H. El-Kanj, H. Salti, **M. Abdul-Niby**, Proceedings of the 16th International CDIO Conference, Chulalongkorn University & Rajamangala University of Technology Thanyaburi, Bangkok, Thailand, June 9-11, 2020.

11- Zaki, M., Kanj, H., Salti, H., **Abdul Niby, M.**, Meticulous effectiveness study of tablet-aided lecturing: case of the Australian College of Kuwait, Proc. of the 16th International CDIO Conference, Bangkok, Thailand: Chulalongkorn University (2020).

12- "Promoting Curriculum Agility Through Project-Based Learning: Case of The Australian University (Kuwait)", Hassan Salti, Hania El-Kanj, Fadi Alkhatib, **Mohammed Abdul-Niby**, Proceedings of the 19th International CDIO Conference, hosted by NTNU, Trondheim, Norway, June 26-29, 2023.

13- "Assessing Sustainability in Kuwait's Higher Education Institutions' Engineering Curricula", Hassan Salti, Hania El-Kanj, **Mohammed Abdul-Niby**, Suad Alradhwan, Fadi Alkhatib. Proceedings of the 21st International CDIO Conference, hosted by Monash University, Melbourne, Australia, June 3-6, 2025.

14- "Embedding Ethics and Professional Responsibility in Engineering Education: Preparing Future Engineers for Industry 5.0", Isam Zabalawi, Khalil Khanafer, and **Mohammed Abdul-Niby**, Proceedings of the 21st International CDIO Conference, hosted by Monash University, Melbourne, Australia, June 3-6, 2025.

	Articles: 1. "Political Economy Facts and Wishes", Part I, IIER (IRAQI INSTITUTE FOR ECONOMIC REFORM), www.iier.org info@iier.org 2. "Political Economy Facts and Wishes", Part II, IIER (IRAQI INSTITUTE FOR ECONOMIC REFORM), www.iier.org info@iier.org 3. "Political Economy", Part III, IIER (IRAQI INSTITUTE FOR ECONOMIC REFORM), www.iier.org info@iier.org
Paper Presentations at Professional Conferences:	1- "Optimizing the Synchronous Optical Network (SONET)", M. Abdul-Niby, M Al-Ameen, "2012 International Conference of the Honam Mathematical Society (HMS) June 15-17, 2012, Jeju city, South Korea". 2- "Engineering Education Reform and Learning Outcomes Assessment", Prof. Isam Zabalawi, Dr. Mohammed Abdul-Niby, Dr. Martin Jaeger, Dr. Mohamad Omar, Dr. Mamoon Alameen, 2019 CDIO Asian Regional Meeting Conferences, Dalian, China, Dalian Neusoft University of Information, March 25- 27, 2019. 3- "Embedding Ethics and Professional Responsibility in Engineering Education: Preparing Future Engineers for Industry 5.0", Isam Zabalawi, Khalil Khanafer, and Mohammed Abdul-Niby, Proceedings of the 21st International CDIO Conference, hosted by Monash University, Melbourne, Australia, June 3-6, 2025.
College Service including committee Membership:	- AU Academic Council - AU Promotion and Appointment Committee - AU Industrial Advisory Board - AU Reward Committee - AU Curriculum Committee - Academic Leadership Team (2014-2015)
National Service:	NA
College Committees:	- College of Engineering Council - College of Engineering PBL (Project Based Learning) Committee - College of Engineering Industrial Advisory Board - College of Engineering Accreditation Committee - College of Engineering Appointment and Promotion Committee - College of Engineering Curriculum Committee