CURRICULUM VITA

Dr. Bader Naser Fahad Altaweel Alajmi

Shuwaikh 70654, Kuwait 423	Department of Electrical Engineering Technology
E-mail: bn.altaweel@paaet.ed	u.kw College of Technological Studies
Phone: +965-66889366	Public Authority for Applied Education & Training
Current Position	Head of the Department of Electrical Engineering Technology
Education	- California State University, Fresno
	Bachelor of Science in Electrical Engineering, May 2001
	– California State University, Fresno
	Master of Science in Electrical Engineering, Dec. 2005
	 University of Strathclyde, Glasgow Ph.D., Electrical Engineering, Mar. 2013 Dissertation: Design and Control of Photovoltaic Systems in Distributed Generation
Projects and	- Bachelor Senior Design Project (2001):
Thesis Titles	Passive Filter Design for Low Order Harmonics
	- M.S. Project (2005):
	Estimating the Harmonics Interaction between
	Nonlinear Loads
	- Ph.D. Thesis (2013):
	Design and control of photovoltaic systems in
	distributed generation

Academic Rewards	Best paper in the 2015 4th International Conference on
	Clean and Green Energy (ICCGE 2015), 14-15 February,
Academic and Industrial Experience	Amsterdam, Netherlands, 2015
	- 2002-2003, Integral Services Co. (ISCO)- Electrical
	Maintenance Engineer.
	- 2002–2004, Kuwait Oil Company (KOC)– Design and
	construction Engineer.
	- 2006 -present, College of Technological Studies,
	Kuwait- Academic staff.
	- 2017-2019, Deputy Head of the Department of
	Electrical Engineering Technology.
	- 2019-present, Head of the Department of Electrical
	Engineering Technology
Contributions to	- Secretary of the scientific department council from
the scientific	2016 to 2019.
department	- Member of the schedule committee from 2015 to 2019.
	- Member of the labor market committee from 2015 to
	2017.
	- Member of the academic accreditation committee from
	2015 to 2017.
	- Member of the scholarships committee from 2017 to
	present.
	- Member of the recruitment committee from 2017 to
	now.
	- Member of the bachelor's degree committee from 2015
	to 2017.

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	-	Participate in the department's general committees at			
		different periods, such as the research committee, the			
		curriculum committee, and the field training			
		committee.			
	-	Coordinator of a scientific symposium entitled			
		"Electricity Tariff between Efficiency and			
		Rationalization" in cooperation with the Kuwait			
		Society of Engineers, May 2016.			
	-	Coordinator of a training course on "Grid Connected			
		PV System" in cooperation with the German company			
		SMA, April 2017.			
	-	Coordinator of a training course on "Power System			
		Protection" in cooperation with Festo Didactic			
		Electric Power, 17-19 January 2019.			
	-	Coordinator of the energy efficiency workshop in			
		cooperation with the Arab Union for Sustainable			
		Development and Environment, 10-11 October 2020.			
	-	Participation in establishing renewable energy major.			
Contributions to	-	Member of the college scholarships committee.			
the collage of	-	Member of the training and labor market follow-up			
technological		committee.			
studies	-	Member of the research and development committee			
		in cooperation Kuwait National Petroleum Company			
	-	Member of the renewable energy committee.			
	-	Contribution in installing a grid-connected PV syste			
		on the deanship building with a production capacity of			
		52 kW.			

Contributions to	- Member of the scientific committee of the Heading		
the Public	Global conference, November 14, 2016.		
Authority for	- Member of establishing the central laboratory		
Applied Education	committee in 2018.		
and Training.			
Contributions to	- Chair, Renewable Energy committee, Kuwait Society		
community	of Engineers, 2013-present.		
activities	- Deputy chair of the Arab Council for sustainable		
	Energy, 2017–present.		
	- Chair, Scientific Committee, Smart Solutions for		
	Future Cities - Conference & Exhibition, 2016.		
	- Chair, Scientific Committee, Energy Efficiency: A		
	Key Driver for Clean Energy Transition- Workshop		
	& Training, 2017 .		
	- Chair, Scientific Committee, Energy Efficiency:		
	Renewables: A Key Driver for Clean Energy		
	Transition- Workshop & Training, 2018 .		
	- Chair, Scientific Committee, Smart Grids		
	Technologies Conference, 2019.		
	- Chair, Scientific Committee, International meeting of		
	young engineers training- Workshop & Training,		
	2017.		
	- Member, Renewable Energy Committee, Arab		
	Engineers Federation, 2013- present.		
	- Member, Renewable Energy Committee, World		
	Federation of Engineering Organizations, 2016-		
	present.		

	- Men	ber,	Renewable	energy	development
	Com	mittee,	ministry of el	ectricity and	d water, 2014-
	2019				
	- Men	ber, Ad	visory Board,	2016 Kuwai	t project-
	MEB	MEED .			
	- Men	Member, Smart mosque Committee, Kuwait Society			
	of Er	of Engineers, 2014-2015.			
	- Men	Member, Engineering Sector Committee, Aljahra			
	Gov	rnorate,	2015-2017.		
	- Men	ber, Eva	aluation of stu	dents' projec	ets Committee,
	Mini	try of Y	outh, 2014–2	015.	
	- Men	ber, Co	mpetition for	the Sustaina	ble House
	Com	mittee, I	KFAS.		
	- Men	ber, An	investigation	committee i	nto the forcing
	code	ministr	y of electricity	and water, 2	2020.
Training Courses	- Atter	ding a t	raining course	in electrical	power systems
	prote	ction, o	rganized by Fe	esto Didactic	Electric Power
	on Ja	nuary 17	7–19, 2019.		
	- Atter	ding the	e Worldwide	Instructional	Design System
	(WII	S) cour	se, 2020.		
	- Atter	ding th	e "Microsoft 7	Teams" Onlin	ne Course, July
	2020				
Computer	- Matl	b progr	aming languag	ge.	
Skills	- C, ai	d C++ p	orograming lar	iguage.	
	- PSIN	progra	m for designi	ng electrical	and electronic
	circu	ts.			
	- PV S	ol progra	am for designin	ng photovolt	aic solar energy
	syste	ns.			

	- PV Syst program for designing photovoltaic solar
	energy systems.
	- RETScreen Program for Economic Calculations of
	Renewable Energy Systems.
Research	- Power electronics.
Interests	- Control systems.
	- Optimization.
	- Renewable energy systems.
	- Power quality.
	- Electric Vehicles.
	- Power energy storage.
Scientific	The scientific publications include 12 papers published in
Dublications	indexed scientific journals, all of which contain Factor Impact
Fublications	in the Journal Citation Report. It also contains 8 papers
	presented or published in the proceedings of scientific
	conferences.
	conferences.
Conference	conferences. 1- A high-frequency induction heating system feed from
Conference Publications	conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost
Conference Publications	conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter
Conference Publications	conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw
Conference Publications	 conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw 2019 IEEE Conference on Power Electronics and
Conference Publications	 conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw 2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE), 511-515, 2019.
Conference Publications	 conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw 2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE), 511-515, 2019.
Conference Publications	 conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw 2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE), 511–515, 2019. 2- A PV interface system based on high-gain high-
Conference Publications	 conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw 2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE), 511–515, 2019. 2- A PV interface system based on high-gain high-frequency link converter.
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Conference Publications	 conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw 2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE), 511-515, 2019. 2- A PV interface system based on high-gain high-frequency link converter. MI Marei, BN Alajmi, I Abdelsalam, MF Alhajri 53rd International Universities Power Engineering
Conference Publications	 conferences. 1- A high-frequency induction heating system feed from parallel connected cascaded non-inverting buck-boost converter K Wagdy, BN Alajmi, I Abdelsalam, HM Elhelw 2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE), 511–515, 2019. 2- A PV interface system based on high-gain high-frequency link converter. MI Marei, BN Alajmi, I Abdelsalam, MF Alhajri ,53rd International Universities Power Engineering Conference (UPEC) 1–6 2018

3- Extraction of Solar Photovoltaic Cell Parameters Using Metaheuristic Algorithm
M.F. Alhajiri, K.M. Alnaggar, B.N. Alajmi.
GCC Power 2018 Conference& Exhibition Kuwait, Nov.
2018.

4- Speed control of electric vehicle

AK Al-Othman, NA Ahmed, ME AlSharidah, KM El-Naggar, BN Alajmi

International Conference on Mechatronics, Control and Automation, 2016.

5- S. Alajmi, B Alajmi, S. Almohalbi, "Kuwait Future Cities and the Role of Kuwait Society of Engineers (KSE)," the 7th edition of Green cities, Malaga, Spain, 2017.

6- S. Alajmi, B. Alajmi," Electronic Waste in Kuwait," Expo Milano 2015, Italy.

7- New flying capacitor multilevel converter

GP Adam, B Alajmi, KH Ahmed, SJ Finney, BW Williams 2011 IEEE International Symposium on Industrial Electronics, 335–339, 2011.

8- Modular multilevel inverter with maximum power point tracking for grid connected photovoltaic application.BN Alajmi, KH Ahmed, GP Adam, SJ Finney, BW Williams

IEEE International Symposium on Industrial Electronics, 2057–2062, 2011.

JOURNAL	1- A Multiport DC-DC Converter Based on Two-
PUBLICATIONS	Quadrant Inverter Topology for PV Systems
	BN Alajmi , MI Marei, I Abdelsalam
	IEEE Transactions on Power Electronics, vol. 36, pp. 522–532, 2021.
	2- Optimal controller tuning for P&O maximum power
	point tracking of PV systems using genetic and cuckoo
	search algorithms.
	N. A. Ahmed, S. Abdul Rahman, and B . N . Alajmi International Transactions on Electrical Energy Systems, vol. n/a, p. e12624. 2021.
	3– Small–Signal Analysis and Control Implementation of Boost Converter Fed PMDC Motor for Electric Vehicle Applications
	BN Alajmi, NNA Ahmed, and AK Al-Othman,
	Journal of Engineering Research n/a (n/a), 2021.
	4- Wind energy conversion system based on open-end winding three-phase PMSG coupled with ac- dc buck-
	boost converter.
	I Abdelsalam, BN Alajmi , MI Marei, MF Alhajri The Journal of Engineering 2019 (17), 4336-4340,

2019.

5- Experimental implementation of PEM fuel cell powered DC motor for vehicle applications.

AK Al-Othman, NNA Ahmed, ME AlSharidah, KM El-Naggar, **BN Alajmi** Journal of Engineering Research 4 (3), 2016.

6- Model predictive control for shunt active power filter in synchronous reference frame.

AK Al-Othman, ME Alsharidah, NA Ahmed, **BN** Alajmi

Journal of Electrical Engineering & Technology 11 (2), 405–415, 2016.

7- Data-driven photovoltaic system modeling based on nonlinear system identification.

A Alqahtani, M Alsaffar, M El-Sayed, **B Alajmi** International Journal of Photoenergy, 2016.

8- Modified Perturbation and Observation Technique for Partially Shaded Photovoltaic Systems in Microgrids.

BN Alajmi, F. A. Alkandari Journal of Clean Energy Technologies, JOCET 4 (1793-821X), 32-35, 2016.

9- Maximum Point Tracking Technique for Partially Shaded Photovoltaic Systems in Microgrids.

BN Alajmi, KH Ahmed, SJ Finney, BWWAM Power IEEE transactions on industrial electronics, April 2013.

10-Single-phase single-stage transformer less gridconnected PV system.

BN Alajmi, KH Ahmed, GP Adam, BW Williams IEEE transactions on power electronics 28 (6), 2664– 2676, 2012.

11-A maximum power point tracking technique for partially shaded photovoltaic systems in microgrids

BN Alajmi, KH Ahmed, SJ Finney, BW Williams IEEE Transactions on Industrial Electronics 60 (4), 1596–1606, 2011.

12-Fuzzy-logic-control approach of a modified hillclimbing method for maximum power point in microgrid standalone photovoltaic system

BN Alajmi, KH Ahmed, SJ Finney, BW Williams IEEE transactions on power electronics 26 (4), 1022– 1030, 2010.

- 13- Advanced maximum power point tracker for PV systems under dusty weather environments
 NA Ahmed, BN Alajmi, I Abdelsalam, MI Marei, MF AlHajri
 IEEJ Transactions on Electrical and Electronic Engineering. 2021
- 14- An Assessment of Net Metering and Feed-in Tariffs for Grid-Connected PV Systems in the Kuwaiti Market BN Alajmi, NA Ahmed, I Abdelsalam, MI Marei

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Arabian Journal for Science and Engineering, 1–13, 2021.

- 15- Analysis and Design of a Multi-Port DC-DC Converter for Interfacing PV Systems
 BN Alajmi, MI Marei, I Abdelsalam, MF AlHajri Energies 14 (7), 1943, 2021.
- 16- Multiphase Interleaved Converter Based on Cascaded Non-Inverting Buck-Boost Converter BN Alajmi, MI Marei, I Abdelsalam, NA Ahmed IEEE Access 10, 42497–42506.
- 17- Soft Switching Multiphase Interleaved Boost
 Converter With High Voltage Gain for EV
 Applications
 NA Ahmed, BN Alajmi, I Abdelsalam, MI Marei

IEEE Access 10, 27698-27716.

 18- An Integrated Topology of Three-Port DC-DC Converter for PV-Battery Power Systems
 MI Marei, BN Alajmi, I Abdelsalam, NA Ahmed
 IEEE Open Journal of the Industrial Electronics Society