



PERSONAL INFORMATION

ZIA NADIR

Nationality: Pakistani (Also, Australian Permanent Resident)
DOB: August 1966 (52 years)
Victorian Driving License: 004654582 (expiry June-2027)
Mailing Address: ECE dept. PC 123, Box 33, SQU, Muscat, Oman
Permanent Address: 24-Calm Avenue, Craigieburn (3064), VIC, Melbourne, Australia
Languages: English (**Read/Write/Spoken/Comprehension**),
French (R/W/S/C), and
Urdu (R/W/S/C)
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Areas of Specialization: RF Communication-Electronics/Computational Electromagnetics
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EDUCATION AND EMPLOYMENT INFORMATION

Education

Sept 96–Nov 99 PhD (Electronics) University of Sciences & Technologies, Lille-1, France

- Obtained PhD from Laboratory of Radio Propagation and Electronics, University of Science & Technology, Lille-1, France
- Specialized in Electronics/Electromagnetic compatibility (E.M.C./E.M.I.)
- Assessed by WES (World Education Services), Canada as equivalent to a Canadian doctorate degree (Ref 2042991)

Sept 95–Sept 96 MS (Electronics) University of Sciences & Technologies, Lille-1, France

- Obtained DESS – Diplome D’Etudes Superieures Specialisees
- Worked at the Laboratory of Radio Propagation and Electronics
- Specialized in Electromagnetic Compatibility (E.M.C./E.M.I.) testing as per EMC standards.
- Assessed by WES (World Education Services), Canada as equivalent to a Canadian Master's degree in Electrical Engineering (Ref 2042991)

Sept 94–Sept 95 MS (Microwave-Microelectronics) University of Sciences & Technologies, Lille-1, France

- Obtained DEA – Diplome D’Etudes Approfondies
- Specialized in Microwaves and Microelectronics
- Assessed by WES (World Education Services), Canada as equivalent to a Canadian Master's degree in Electrical Engineering (Ref 2042991)

Oct 84–Jun 89 BSc (Electrical Engineering) University of Engineering & Technology, NWFP, Pakistan

- Specialized in communication systems.
- Equated by Engineers Australia (MIEAUST-2336819)
- Assessed by WES (World Education Services), Canada as equivalent to a Canadian bachelors’ degree in Electrical Engineering (Ref 2042991)
- CGPA 3.94 (A; 80% and above)

Employment History (Full Time)

May 14–Present Associate Professor, Dept. of ECE, Sultan Qaboos University, Muscat, Oman

- Main Responsibilities include:
 - Teaching and Advising,
 - Research,
 - Administrative, Professional and Community Services.
 - Assistant Head of the Department (March 2015-March 2018)

Aug 02–May 14 Assistant Professor, Dept. of ECE, Sultan Qaboos University, Muscat, Oman

- Main Responsibilities include:
 - Teaching and Advising,
 - Research,
 - Administrative, Professional and Community Services.

Aug 01–Aug 02 Lecturer; Dept. of ECE, Sultan Qaboos University, Muscat, Oman

- Main Responsibilities include:
 - Teaching and Advising,
 - Research,
 - Administrative, Professional and Community Services.

Dec 99–Jul 01 Assistant Director (Technical); HV and SC Laboratory, WAPDA, Pakistan

- Worked as Test Engineer in an I.S.O. certified laboratory under Pakistan Water and Power Development Authority, (WAPDA) for power equipment testing including Power transformer, Distribution transformer, Circuit breakers, 11-kV panels and Cables.
- Supervised, designed and carried the testing procedures of power equipment from local and foreign manufacturers and suppliers as per international standards.
- Involved in issuance of compliance certification.

Apr 91–Jun 94 Sub-Divisional Officer; WAPDA, Islamabad, Pakistan

- Supervised and trained a team of 20 technical staff members.
- Managed Power network of very important installations, like Parliament House, President House, and Prime-Minister House.
- Maintenance of distribution network.
- Worked on optimization of power losses.

Oct 90–Mar 91 Engineering Trainee Officer; WAPDA, Pakistan

- Worked for WAPDA Engineering Academy, Faisalabad, Pakistan.
- Followed an intensive full time technical training in the field of power Generation, Transmission and Distribution.

May 90–Oct 90 Engineering Trainee Officer; WAPDA, Pakistan

- Worked for WAPDA Engineering Academy, Tarbela, Pakistan.
- Followed an intensive full time Basic Management course.

Visiting Positions (Full Time)

Jul 06–Aug 06 Invited Researcher; iRadio Lab ECE dept., University of Calgary, Canada

- Research in the area of RF/Microwave circuit design for communication industry.
- Mainly involved in the designing of high efficiency class E switching mode amplifiers using Envelope Elimination and Restoration technique. This research has a goal of increasing the battery life of mobile sets by increasing the efficiency of power amplifiers.
- Resulted several publications and offering of research oriented senior design undergraduate projects and offer of new undergraduate and graduate courses at SQU.

Jul 00–Jul 01 Faculty; Hamdard Institute of I.T., Islamabad, Pakistan

- Taught courses on Basic Electronics and Data Transmission.
- Administrative work of the department.
- Design and Procurement of Electronics Lab Equipment.
- Selection of books for the Library in Electronics area.

Research Scholar Positions (Full Time)

Sept 96–Nov 99 Doctoral Research Scholar; University of Sciences and Technologies, Lille-1, France

- Characterized different testing methods (e.g., T.E.M. cell, G.T.E.M. cell, Anechoic Chamber, and Mode Stirrer Reverberating Chamber) which are used in electromagnetic compatibility studies and for immunity and radiation testing of electronic equipment.
- Worked on electromagnetic coupling to transmission lines, analyzed results with the help of theoretical simulation using Transmission Line Theory and Numerical Electromagnetic Code.
- Mentored MS students working in the area.

Sept 95–Sept 96 Student (MS) Researcher; University of Sciences and Technologies, Lille-1, France

- Completed a research project to develop a computer code in FORTRAN for Transmission Line Matrix Method (TLM) for two-dimensional problems.
- Contributed in Research project for Transmission Line Matrix Method (TLM) for three-dimensional problems.

Sept 94–Sept 95 Student (MS) Researcher; University of Sciences and Technologies, Lille-1, France

- Designed, developed, manufactured, and tested the projects, such as:
 - Power divider, f=6.2 GHz.
 - Microwave Couplers f=6.2 GHz and 6.6 GHz.
 - Interdigital filter (O.C.T.L.) f=3.1 GHz.
 - Power Amplifier f=6.2 GHz.
 - Oscillator f=7.0 GHz.

AWARDS AND RECOGNITION

2016	Awarded a certificate by H.E. the Vice Chancellor of the university for “Distinguished Teaching Award” of college of Engineering, 2015-2016.
2015	Awarded a letter of appreciation by the dean of college of engineering for the best student’s advisor of the college.
2014	Awarded a letter of appreciation from H.E. the Vice Chancellor of SQU Oman, for involvement in ABET for the department of ECE programs, College of Engineering.
2012	Awarded a certificate of appreciation and a shield from the Dean of College of Engineering, SQU Oman, for efficiently handling an additional responsibility given since 2010 as Foundation Program Liaison Officer (FPLO) for all College of Engineering students. Each year, on an average of more than 200 students’ timetables and courses/registration issues are dealt efficiently and promptly to minimize the new students’ problems.
2010	Awarded a letter of appreciation from H.E. the Vice Chancellor of SQU Oman, for involvement in ABET for the department of ECE programs, College of Engineering.
2010	Awarded a certificate of merit for a paper titled “ <i>Pathloss determination using Okumura-Hata model and Cubic Regression for missing data for Oman</i> ” in IAENG-ICCSA Hongkong, 17-19 March 2010.
1996–1999	French Government & Ministry of Science and Technology (MoST) , Government of Pakistan’s Scholarship for studying in University of Science & Technology Lille-1, France for PhD studies.
1994–1996	Ministry of Science and Technology (MoST) , Government of Pakistan’s Scholarship for studying in France for DESS and DEA studies.
1985–1987	Recipient of merit scholarships for consecutive three years in B.Sc. Engineering studies for remaining in top-10 students of class (out of more than 100 students).
1989	Awarded a letter of appreciation by the Chairman of Electrical Engineering department, University of Electrical Engineering, Peshawar for brilliant success in Final year and obtaining honors degree in BSc Electrical Engineering program. (World Education Services, W.E.S. Canadian equivalency – GPA 3.94/4.00 (A; 80% and above)
1984	Top student of Pre Engineering group in college and 3 rd position overall in the college
before 1984	Received several awards/certificates (more than 40) in schools/college for distinguished and outstanding performance e.g. getting first position in each and every exam.

TEACHING

MY GOALS IN TEACHING ARE:

- a. To present ECE theories and techniques to students in an environment that stresses continuous improvement.
- b. To develop anxiety free atmosphere and direct students to think to enable them to develop their abilities.
- c. To help students inside or outside classroom for increasing their technical abilities.

Summary: Since I joined Hamdard Institute of Information Technology (Pakistan) in 2000 and SQU in 2001, my primary activity has been teaching. I have taught several courses at both undergraduate and graduate level. At SQU, the core courses are,

INSTRUCTION AND STUDENTS REGISTRATION

AT SULTAN QABOOS UNIVERSITY, OMAN

Semester	Course Code	Course Title	Students' Registration
Summer2018	MEIE4183	Numerical Methods for Engineers	41
Spring2018	ECCE4158	Electronics II	30
	ECCE3152	Electronics I	25
Fall2017	ECCE4158	Electronics II	18
	ECCE3152	Electronics I	32
Summer2017	MEIE4183	Numerical Methods for Engineers	43
Spring2017	ECCE4158	Electronics II	21
	ECCE3152	Electronics I	37
Fall2016	ECCE4158	Electronics II	24
	ECCE2016	Circuits-1	29
Spring2016	ECCE4158	Electronics II	28
	ECCE6135	RF Communications Circuits Design	5 (Graduate)
Fall2015	ECCE4158	Electronics II	42
	ECCE4158	Electronics II	21
Summer2015	MEIE4183	Numerical Methods for Engineers	57
Spring2015	ECCE4158	Electronics II	41
	ECCE4158	Electronics II	19
Fall2014	ECCE4158	Electronics II	28
	ECCE3022	Electromagnetics I	24
Summer2014	MEIE4183	Numerical Methods for Engineers	50
Spring2014	ECCE4158	Electronics II	43
	ECCE4158	Electronics II	20
Fall2013	ECCE4158	Electronics II	32
	ECCE4158	Electronics II	27
Summer2013	MEIE4183	Numerical Methods for Engineers	54
Spring2013	ECCE4158	Electronics II	40
	ECCE4158	Electronics II	37
Fall2012	ECCE4158	Electronics II	42
	ECCE4158	Electronics II	37
Summer2012	MEIE4183	Numerical Methods for Engineers	51
Spring2012	ECCE4158	Electronics II	40
	ECCE3022	Electromagnetics I	35
Fall2011	ECCE4157	Electronics II *	34
	ECCE5164	RF Communications Circuits	13
	ECCE6134	Selected Topics in Communications	04 (Graduate)
Summer2011	MEIE4183	Numerical Methods for Engineers	53
Spring2011	ECCE4157	Electronics II *	30
	ECCE3022	Electromagnetics I	54

Fall2010	ECCE3152 ECCE4157	Electronics I Electronics II *	33 42
Summer2010	MEIE4183	Numerical Methods for Engineers	54
Spring2010	ECCE4157 ECCE4157	Electronics II * Electronics II *	44 11
Fall2009	ECCE3022 ECCE4157	Electromagnetics I Electronics II *	34 47
Summer2009	ECCE4005	Numerical Methods for Engineers	56
Spring2009	ECCE3022 ECCE4157	Electromagnetics I Electronics II *	41 33
Fall2008	ECCE4022 ECCE4157	Electromagnetics II Electronics II *	29 47
Summer2008	MEIE4183	Numerical Methods for Engineers	59
Spring2008	ECCE6135 ECCE4157	RF Communications Circuits Design Electronics II *	06(Graduate) 43
Fall2007	ECCE4022 ECCE3152	Electromagnetics II Electronics I	36 51
Summer2007	ECCE2016	Circuits I	38
Spring2007	ECCE3152 ECCE4157	Electronics I Electronics II *	33 51
Fall2006	ECCE3152 ECCE4157	Electronics I Electronics II *	48 22
Summer2006	ECCE2016	Circuits I	38
Spring2006	ECCE3022 ECCE4157	Electromagnetics I Electronics II *	28 36
Fall2005	ECCE3152 ECCE3022	Electronics I Electromagnetics I	45 18
Summer2005	ECCE2016	Circuits I	31
Spring2005	ECCE3152 ECCE4157	Electronics I Electronics II *	23 30
Fall2004	ECCE3152 ECCE3022	Electronics I Electromagnetics I	17 25
Summer2004	ECCE3016	Circuits II	25
Spring2004	ECCE4022 ECCE3152	Electromagnetics II Electronics I	32 26
Fall2003	ECCE4022 ECCE2016	Electromagnetics II Circuits I	31 14
Spring 2003	ELEC3511 IENG4611	Electromagnetics I Electronics II	30 30
Fall2002	IENG3621 IENG3522	Electronics I Electromagnetics II	19 12
Spring 2002	IENG3621 IENG3511	Electronics I Electromagnetics I	25 31
Fall2001	IENG3621 IENG3511	Electronics I Electromagnetics I	34 11

*4 credits course otherwise 3 credits

AT HAMDARD INSTITUTE OF INFORMATION TECHNOLOGY, PAKISTAN

Semester	Course Code	Course Title	Students' Registration
Spring2000	EE121	Basic Electronics	> 40
Fall2000	TE211	Data Communications	> 40

NEWLY DEVELOPED COURSES**AT SULTAN QABOOS UNIVERSITY, OMAN**

1. ECCE4158 Electronics II (3 credits)
2. ECCE4005 Numerical Methods for Engineers (3 credits)
3. MEIE4183 Numerical Methods for Engineers (3 credits)
4. ECCE5164 RF Communications Circuits (3 credits)
5. ECCE6134 Selected Topics in Communications (Graduate) (3 credits)
6. ECCE6135 RF Communications Circuits Design (Graduate) (3 credits)

AT HAMDARD INSTITUTE OF INFORMATION TECHNOLOGY, PAKISTAN

7. EE-121 Basic Electronics (Previous Work Place)
8. TE-211 Data Communications (Previous Work Place)

My teaching interests are in the courses related to Electronics (Analog/Digital), Electromagnetics, Microwaves, E.M. devices, Antennas and wave propagation and RF communication Electronics. I believe that other than the above mentioned courses, I have the ability, experience and the necessary background to offer following courses in the undergraduate and graduate program whenever required e.g.:

1. Digital Circuits and Systems
2. Electronic Devices
3. Radio Frequency Electronics/Semi-Conductors
4. Antennas and Wave Propagation
5. EMC/EMI
6. Microwave Engineering
7. Science and Engineering of Microelectronic Fabrication
8. Fundamentals of Electrical Engineering

DOCTORATE PROJECT SUPERVISION

1. “LTE/GSM” (Details in drafting phase).
 - Mr Wahab Al Rawahi
 - Role: Member of supervising committee
 - Sept 2016 (Discontinued study after one year)

MASTER PROJECT SUPERVISION**AT SULTAN QABOOS UNIVERSITY, OMAN**

1. “Traffic Management in wireless sensors network”
 - Ms Zainab Al Ajmi [College of Economic & Political Science/ Information system]
 - SP17/FL17 (Discontinued after one semester)
 - Role: Co-Supervisor
2. “Seasonal Propagation Path Loss Models for 4G-LTE Urban Micro and Macro Cellular Scenarios for Oman”
 - Mahmoud Ragheb Mahmoud Mehjneh
 - FL16/FL17 (Discontinued studies after one year)
 - Role: Supervisor

3. “Design and simulation of antenna array for vehicle collision avoidance radar system”
 - Nusaiba Ali Abdullah AlAzri
 - FL16/FL17 (Completed)
 - Role: Co-Supervisor

4. “Artificial Intelligence for Cyber Security of Cyber Physical Systems ”
 - Mr Rana Jacob Jose (114136/2015) [College of Economic & Political Science/ Information system]
 - FL16/SP18 (Completed)
 - Role: Co-Supervisor

5. “Empirical M.P.L. (Maximum Permissible Loss) Modeling for Outdoor Wireless Links”.
 - Mahmood Al Rashdi
 - FL12/SP13 (Completed)
 - Role: Supervisor

6. “Design of a TFI-O.F.D.M. Ultra-Wideband Standard Receiver”.
 - Salem Al Arafati
 - FL12 (Post Graduate Diploma)
 - Role: Co-Supervisor

7. “Characterization of Radio Propagation Pathloss- A Case Study of GSM Network of Muscat CBD Area”.
 - Asaad Saoud Ahmed Al Ruqeishi
 - FL11/SP12(Completed)
 - Role: Supervisor

8. “Modeling of Impulse U.W.B. Antennas for Radar & Communication Applications”
 - Abbas Teirab
 - FL11/SP12(Completed)
 - Role: Co-Supervisor

9. “Modeling and Measurement of EM Radiation Fields from Mobile Base Stations at SQU ”
 - Ahmed Musallam Ahmed Al Mahri
 - SP11/SP12(Completed)
 - Role: Co-Supervisor

10. “GSM Spectrum Re-Farming for Batinah Region in Oman”
 - Wahab Salim Mohammed Al-Rawahi
 - FL12/SP13 (Completed)
 - Role: Supervisor

11. “MIMO Antenna for UWB Communications”
 - Ali Hamed Ali Al-Shamsi
 - FL12/SP13 (Completed)
 - Role: Co-Supervisor

MASTER THESIS EXAMINATION COMMITTEE

1. “Fractional Integrated Time Series Models for Forecasting Crude Oil Prices”
 - Ms. Abir Bilal Al Khabori, DOMAS-SQU
 - Role: External Examiner and Member
 - 19 Dec 2017.

2. “Vehicle Platoon Control System”.
 - Ms. Muna Abdullah Al Rahbi, SQU
 - Role: Member
 - 28th June 2016

3. “Developing a Design Approach for M-Learning Software Applications”.
 - Ms. Halima Al Harrasi – Computer Science, SQU
 - Role: External Examiner and Member
 - 10th December 2015

4. “Managing Security Risks of CPS: A contemporary Risk assessment approach for smart grid”.
 - Ms. Amira Al Zadjali – Information systems, SQU
 - Role: External Examiner and Member
 - 18th October 2015

5. “Lie Point symmetries of the geodesic equations in the Godel Universe”
 - Miss Fatma Mohammed Moosa Al Kindi – DOMAS SQU
 - Role: External Examiner and Member
 - 15-June 2015

6. “Design of Optimal Test Pattern Generator for BIST Environment”
 - Mr. Ahsen Rizvi – ECE SQU
 - Role: Member
 - January 2015

7. “Time Series Modeling of Air Travel Demand at MCT International Airport and National Economy of Oman”.
 - Ms. Huda Hilal Al Kharusi – DOMAS SQU
 - Role: External Examiner and Member
 - 8th January 2013

8. “Probabilistic Approach in Wellbore Stability”.
 - Mr. Mahmood Al Khayari – PCE dept. SQU
 - Role: Chairman
 - 5th January 2013

9. “Broad Band services in remote areas of the Sultanate of Oman”.
 - Mr. Ahmed Al Haddabi – ECE dept. SQU
 - Role: External Examiner and Member
 - 23rd September 2012

10. “Assessing the OHS Risks using AHP in MSE’s in Oman”.
 - Mr. Md. Anisul Islam– MEIE dept. SQU
 - Role: External Examiner and Member
 - 3rd September 2012
11. “Risk Analysis in Project Management: case study for gas injection project”.
 - Ms. Widad Maqbool Al Abduwani– MEIE dept. SQU
 - Role: External Examiner and Member
 - 18th February 2012
12. “Metal/n-Type GaN Schottky Contacts: Interface States and Barrier In-homogeneities”.
 - Ms. Badria Nasser Al Hashmi– Physics dept. SQU
 - Role: External Examiner and Member
 - 20th May 2009
13. “Office Ergonomics: An intervention study with an oil refinery company”.
 - Mr. Salim Ali Al-Harhi - MEIE dept. SQU
 - Role: Chairman
 - 1st June 2005

DOCTORATE THESIS EXAMINATION/REVIEWER COMMITTEE

1. “Performance Analysis of Swelling Elastomer Seals in Petroleum Applications”.
 - Mr Maaz Akhtar – Mechanical Engineering, SQU, Oman
 - Role: Chairman
 - 23rd September 2014
2. “Design and Performance Analysis of CMOS RF Front-End Circuits”.
 - Ms M. Sumathi – Electronics Engineering, SATHYABAMA UNIVERSITY, Chennai, INDIA
 - Role: External/Foreign Examiner
 - 5th March 2012

UNDERGRADUATE SENIOR DESIGN PROJECT SUPERVISION (AT SQU)

2017-2018

1. “Design and Implementation of Vehicle Tracking and Locking System based on GSM/GPS”; 3 students (Supervisor)
2. “Impact of RF and Static Electric/Magnetic Field on Seeds and Plants (continued)”; 3 students (Supervisor)
3. “Design and Implementation of smart energy/consumption monitoring system for domestic consumers; 3 students (Supervisor)
4. “A prospective descriptive study of satisfaction of cancer patients attending medical oncology services at SQUH” ; 2 students from college of medicine (Co-Supervisor)

2016-2017

1. “Design and Implementation of a Microwave Instant Water Heating System”; 2 students (Co-Supervisor)
2. “Design and simulation of a 76-81 GHz Dual Mode Transceiver system for Collision Avoidance Radar System” ; 2 students (Supervisor)

2015-2016

3. “Impact of RF and Static Electric/Magnetic Field on Seeds and Plants”; 4 students (Supervisor)

FURAP-2015

4. “Design and Implementation of an Intelligent Sensory System for Unmanned Ground Vehicle”; 4 students (Co-Supervisor)
5. “Pilgrim Tracking System”, ; 4-students (co-supervisor)

2014

6. “Design and Implementation of a device for GSM Transmitters” ; 3 Students (Supervisor)
7. “Design of wireless automotive communication System”-Updated Project-PII; 1 student (Supervisor)
8. “Design and Implementation of a smart white can”-PII; 4 students (Co-Supervisor)

2013

9. “Design and Implementation of a LOS Microwave Link” ; 4 Students (Supervisor)
10. “Design and Implementation of an Enhanced RF Energy Harvesting System for Wireless Sensors”; 3 Students (Co-Supervisor)

2012

11. “RFID Based Design and Implementation of Animal Tracking System”; 4 Students (Supervisor)

2011

12. “RF Energy Harvesting System Design”; 2 Students (Supervisor)
13. “Design and Simulation of an RF Transmitter”; 1 Student (Supervisor)
14. “RFID Based Design and Implementation of Employees Attendance Management System-second phase”; 3 Students (Supervisor)

2010

15. “RFID Based Designing and Implementation of Employees’ Attendance Management System”; 4 Students (Supervisor)

2009

16. “RFID Based Design and Implementation of Vehicular Access System”; 4 Students (Supervisor)
17. “Designing a High Efficiency Class-E Power Amplifier for RF”; 4 Students (Supervisor)

2008

18. “Design and Development of a Software for RF Network Design and Planning Suitable for OMAN”; 2 Students (Supervisor)
19. “Design and Implementation of a Wireless Luggage Tracer”; 4 Students (Supervisor)

2007

20. “Designing a High Efficiency Switching Mode Power Amplifier for Broad Band Systems”; 4 Students (Supervisor)
21. “Designing a Wireless Network for Modern City With Multi-storey Buildings”; 3 Students (Co-Supervisor)

2006

22. “Designing a Low EMF interaction antenna for cellular systems using Numerical Electromagnetic Code (NEC)”; 2 Students (Supervisor)
23. “Design and Planning of a RF Network for Salalah Region Using Pathloss”; 3 Students (Supervisor)
24. “Design and Implementation of a wireless automatic meter reading system (WAMRS)”, (project scope Published in the local newspaper, Times of Oman; 4 Students (Co-Supervisor)

2005

25. “Designing a Log Periodic Dipole Array for VHF/HF Communication”; 3 Students (Supervisor)

2004

26. “Computer Based Design and Implementation of prototype parking control system”; 3 Students (Supervisor)

2003

27. “Designing a Transverse Electromagnetic Cell using Numerical Electromagnetic Code for Electro-Magnetic Compatibility Studies”; 3 Students (Supervisor)
28. “Design and Implementation of a Prototype Parking Control System”; 2 Students (Supervisor)

2002

29. “Design and Implementation of a Transverse Electromagnetic Cell”; 2 Students (Supervisor)

2000

30. “Design and Implementation of Infrared Based Security System”; Previous Workplace-2 Students (Supervisor)

SCHOLARLY PUBLICATIONS FROM STUDENTS SENIOR DESIGN PROJECTS (AT SQU)

- [C1] A. Al Saadi, M. Al Rashdi, H. Al-Nassri, **Z. Nadir**, M. Khan, “Impact of RF and LEDs on the Growth of the Plants”, 7th Brunei International Conference on Engineering and Technology 2018” (BICET-2018), Brunei, 12-14 November 2018.
- [C2] M. Mahajneh, M. Elfatih, M. Al Belushi, and **Z. Nadir**, “LTE Pathloss Propagation Using Cost231-Hata Model For Oman”, 9th IEEE GCC Conference” (IEEE-GCC 2017), Bahrain 9-11, May 2017.
- [C3] F. Al-Kathiri, K. Al-Raisi, K. Al-Hinai, M. Al-Droushi, M. Khan, **Z. Nadir**, “Impact of RF Electromagnetic Field on Cucumber and Tomato Plants”, 7th IEEE Annual Information Technology, Electronics and Mobile Communication Conference” (IEEE-IEMCON 2016), Vancouver, Canada 13-15, pp:1-4, October 2016.
- [C4] M. Al-Ajmi, A. Al-Blushi, R. Al-Mamari, **Z. Nadir**, M. Bait-Suwailam, “Class-F Power Amplifier with High Power Added Efficiency for 900MHz”, Proceedings of the 2014 International IEEE Conference, “2nd International Conference on Electronic Design ICED 2014” (ICED 2014), Penang, Malaysia, pp.137-142, 19-21, August 2014.
- [C5] A. Khayari, H. Khayari, S. Nabhani, M. Suwailam, **Z. Nadir**, “Design and Implementation of An Enhanced RF Energy Harvesting Circuit for Wireless Sensors”, 7th IEEE GCC conference and exhibition, Doha, Qatar, pp. 479-482, 17-20 Nov. 2013.

- [C6] M. Lawati, M. Busaidi, **Z. Nadir**, “RF Energy Harvesting System Design for Wireless Sensors”, 9th International Multi-Conference on Systems, Signals and Devices (IEEE-SSD’12), Chemnitz, Germany, pp. 1-4, 20-23 March 2012.
- [C7] Y. Ameera, R. Iman, S. Fatema, H. Marwa, T. Farid, **N. Zia**, “High Efficiency Switching Mode Class-E Power Amplifier Design Improvements for RF”, IEEE- Student conference on Research and Development (ScoreEd-09), Malaysia, pp. 1-4, 16-18 Nov, 2009.
- [C8] M. Dhawyani, Q. Mahrooqi, F. Rahbi, A. Kalbani, F. Touati, **Z. Nadir**, “Improvement in The Efficiency of Class-E Power Amplifier for RF”, IEEE-Multi conference on Systems, Signals and Devices (SSD-2008), Philadelphia University Amman campus, Jordan, pp. 491-495, 20-23 July, 2008.
- [C9] N. Elfadhil, **Z. Nadir**, F. Touati, A. Suliemani, A. Sheili, M. Gharibi, “Designing A Wireless Network for Al-Khuwair Area in The Sultanate of Oman”, IEEE- Fourth International Conference on Wireless and Optical Communications Networks (WOCN-2007), Singapore, pp. 284-287, 2-4 July, 2007.
- [C10] N. Elfadhil, M. Salam, A. Lawati, O. Qasmi, M. Gheithi, **Z. Nadir**, “Modification of an Open Area Okumura-Hata Propagation Model Suitable for Oman”, (IEEE-TENCON2005), Melbourne, Australia, pp. 1-4, 21-24 November 2005.

CURRICULUM DEVELOPMENT AND TEACHING MANAGEMENT

- Coordinator of the Electronics Group for Labs (2002 to 2005) and Member (2001-Present). The group re-organized all the Electronics Labs I and II manuals, introduced at least six new experiments and new pre-labs for each experiment and placed all the manuals on INTRANET/WEBCT/MOODLE for student’s easy access and download,
- Modified and improved 2000-degree plan after the split of the department into Department of Electrical Engineering and Department of Information Engineering,
- Involved in the preparation of 2002 to 2007-degree plans,
- Designed courses as per ABET requirements,
- Introduced and used WEBCT for student’s better understanding,
- Introduced and used MOODLE for all of the courses e.g. online resources management, online quiz,
- Introduced and used ELEARN for all of the courses e.g. online resources management, online quiz,
- Designed and Prepared fillable PDF forms for faculty for summer registration (2010-present).

COURSES DEVELOPMENT

- Lead the course focus groups in developing following courses which involves development of course outline, selection of texts, design of lab or computer based experiments, preparation of lab manuals and software simulation tutorials and use of WEBCT, MOODLE and now ELEARN.
- I was motivated in the context of curriculum development, so I initiated and attended a workshop on Integrated Circuits design and fabrication and another one on semiconductor process and device simulation, both organized by King Abdulaziz City for Science and Technology, Saudi Arabia, in collaboration with IC Microsystems, Malaysia. The outcome was the introduction of new topics, especially in the newly developed Electronics II course (ECCE4158). Students were introduced to the latest cutting-edge technologies in the electronics area, which augmented their interest in the subject.
- Several workshops attendances, e.g.
 - How to use Webct, (2004 by SIS, SQU),

- How to use Moodle, (2011, By Mrs Andrea, SQU)
- How to write research paper, (2009?)
- ABET (several 2007 onwards),
- How to use Labview (2012 by Prof Hadj, SQU),
- How to use Endnote (23/10/2013 by Dr Ali Al Balushi, SQU)
- How to use Turnitin (13/01/2014 by Turnitin, SQU)
- Driving Institutional Effectiveness through Performance Assessment: A Best Practice (19/03/2014 by Quality Assurance Office, SQU and Live Text)
- Nanotechnology- A Key to the Future (31/3/2014 by Prof Dutta, TRC chair, SQU)
- Institutional And Program Standards Assessment Seminar: (22/05/2014 by Quality Assurance Office and Oman Academic Accreditation Authority)
- “Introduction to COMSOL Multi-physics”, CAE, College of Engineering, SQU, 12th May 2015
- The annual Research Forum 2015 by TRC, Oman (26-27 October 2015)
- Introduction to Conceiving — Designing — Implementing — Operating (CDIO) real-world systems and products Initiative by Juha Kontio. SQU, Oman (17-19 May 2016).
- RF systems Keysight Equipments in CSP, (March 2017).
- ITU Regional Radio Communication Seminar 2017 for Arab Countries (RRS-17-Arab) Muscat, Oman, 10-14 December 2017.
- Smart technologies and solutions for Teaching and learning to be arranged by SQU, 25-26 April 2018.
- Improving Teaching and Learning with Technology arranged by SQU, 25-26th April 2018.
- Calculus Course by <https://www.udemy.com>
- Advanced Calculus by <https://www.coursera.org/>

AT SULTAN QABOOS UNIVERSITY, OMAN

- | | |
|--------------|--|
| 1. ECCE2016 | Circuits I |
| 2. ECCE3016 | Circuits II |
| 3. ECCE3022 | Electromagnetics I |
| 4. ECCE3152 | Electronics I |
| 5. ECCE4005 | Numerical Methods for Engineers |
| 6. ECCE4022 | Electromagnetics II |
| 7. ECCE4157 | Electronics II |
| 8. ECCE4158 | Electronics II |
| 9. MEIE4183 | Numerical Methods for Engineers |
| 10. ECCE5164 | RF Communications Circuits |
| 11. ECCE6134 | Selected Topics in Communications (Graduate) |
| 12. ECCE6135 | RF Communications Circuits Design (Graduate) |

AT HAMDARD INSTITUTE OF INFORMATION TECHNOLOGY, PAKISTAN

- | | |
|------------|---------------------|
| 13. EE-121 | Basic Electronics |
| 14. TE-211 | Data Communications |

LABORATORY DEVELOPMENT

AT SULTAN QABOOS UNIVERSITY, OMAN

1. Developed and improved the electronics labs manuals and keep them updated.
2. Initiated, designed and offered new laboratory experiments in Electronics courses.
3. Initiated, designed and offered new Programming-based Computer labs/tutorials in Numerical Method courses.

AT HAMDARD INSTITUTE OF INFORMATION TECHNOLOGY, PAKISTAN

4. Developed electronics laboratory and involved in procurement process.
5. Developed the electronics labs manuals and kept them updated.
6. Initiated, designed and offered new laboratory experiments in Electronics courses.

STUDENT ADVISING (UNTIL THE STUDENTS GRADUATE/5 YEARS ADVISING FOR EACH COHORT)

- Cohort 2000 (more than 40 students),
- Cohort 2001 (more than 40 students),
- Graduate students (4 students),
- Cohort 2006 (more than 30 students),
- Currently advisor Cohort 2007 (more than 10 students),
- Remained advisor of Foundation Program for College of engineering from 2010-2014 (for more than 200 students are advised on average each year).
- Started and Remained Chair of Pre-Specialization Academic Advising Unit (2014-2015)

TEACHING ACTIVITIES OUTSIDE THE CLASS ROOM (AT SQU)

- Conducted tutoring session to encourage students to seek tutoring as needed,
- Explained new and additional software simulation packages whenever needed,
- Assisted students in learning problem-solving methods,
- Mentored students and encourage their interest in the field,
- Made office hours accessible to students by accommodating their personal concerns (e.g., classes) and schedule conflicts; Also available as per their schedule by prior appointment,
- Meet students informally outside the class room for their problems in courses or registration,
- Extensively involved **undergraduate students** in my research and scholarly activities. Subsequently, this has resulted in publications of six papers in international refereed IEEE conferences.
- Help students organize departmental activities or conference organization,
- Provide opportunities for all students to get to know each other and their abilities.

SERVICE (AT SQU)**UNIVERSITY ADMINISTRATION AND COMMITTEES****ADMINISTRATIVE POSITION**

- Dean College of Engineering,
Role: Acting Position (26 July 2015-06th August 2015).
- Assistant Dean Students' Academic Affairs in College of Engineering,
Role: Acting Position (2011, 2012, 2013, 2014, on several occasions).
- Assistant Dean Post Graduate studies and Research in College of Engineering,

Role: Acting Position (8th Aug 2014 – 28 Aug 2014).

- Head of the ECE department in College of Engineering,
Role: Acting Position (22 July 2014 - 16th Aug 2014):(21st July 2015-06th August 2015).
- Assistant Head of the ECE department in College of Engineering,
Role: Assistant HoD Position (March 2015 – March 2018)

COLLEGE SERVICE

- Pre-specialization Academic Advising Unit (PAAU) of College of Engineering
Role: Coordinator (2014-2015)
- Foundation Program Liaison Officer (FPLO) of College of Engineering to work with the Registration Office and other colleges. This is to deal all aspects of FP students' registration and timetabling issues of all college of engineering foundation program students each year
Role: Coordinator (2010-2014)
- Community Services Committee
Role: Member (2001-2002)
- Staff/Student Liaison Committee
Role: Member (2010-2014)
- College of Engineering Curriculum Committee
Role: member from ECE (2014-2015) & (2016-present)
- College of Engineering Board
Role: Invited member from ECE (2015-2016)

DEPARTMENT SERVICE

- Adhoc Committee for Engg. Research Lab utilization with Civil Engg Dept
Role: Member (2017)
- Adhoc Committee in ECE department for organizing the first national event titled "Linking Higher Education with Public & Private Sectors"
Role: Member (event from 7-9 May 2017)
- Assistant Head of department
Role: (2015-2018)
- Students Advisement Committee
Role: Member (2006-2015) & Chair (2015-2016) & Member (2016-present)
- Time Tabling committee
Role: Chair (2015-Present)

- Staff-Student Liaison Committee
Role: Member (2015-Present)

- Curriculum review and Program Development Committee
Role: Member (2014-Present)
- Curriculum review and Program Development Committee
Role: Chair (2017-Present)
- Communication and Signal Processing Track Coordinator
Role: Member (2014-2015)

- Accreditation, Curriculum and Time Tabling committee
Role: Member (2010-2014)

- Time Tabling committee (a subcommittee) of Accreditation, Curriculum and Time Tabling committee
Role: Chairman (2007-2017)

- Safety and Lab Facilities Committee
Role: Member (2003)

- Publications and Web Committee
Role: Member (2003)

- Organizing committee for Workshop on Electrical Safety, April 6, 2003; Organized by ECE, Sponsored by PDO,
Role: Member (2003)

- Web and Publications Committee
Role: Member (2001 and 2002)

- Prepared the College of Engineering prospectus (2002)

- Involved in arranging, collecting and preparing the information to create a new database for Department of Information Engineering (2002)

- Community Services Committee
Role: Chairman (2001-2003)

- ECE Department Board
Role: Member (2001-Present)

PROFESSIONAL SERVICES

PROFESSIONAL MEMBERSHIP

1. Senior member of South Asia Institute of Science and Engineering (SAISE) (China).

2. Pakistan Engineering Council, PEC ELECT-7766 (Pakistan),
3. Institute of Engineers, MIEAust-2336819 (Australia),
4. International Association for the Engineers, IAENG M-63900 (Hong-Kong),
5. Institute of Electrical and Electronics Engineers, IEEE M-41433587 (USA),
6. Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology ECTI M-0502000 (Thailand),
7. Senior Member of International Association of Computer Science and Information Technology IACSIT M-80341394 (Singapore).

REVIEWER OF INTERNATIONAL JOURNALS:

1. The Journal of Electrostatics (Elsevier),
2. International Journal of Wireless and Mobile Computing (IJWMC),
3. The Journal of Engineering Research (TJER),
4. SQUJ- for Science,
5. International Journal of Energy Technology and Policy (IJETP),
6. International Journal of Computing and Digital System (IJCDS).

REVIEWER OF INTERNATIONAL CONFERENCES:

1. Wireless Communications (WC),
2. Students' Conference on Electrical, Electronics and Computer Science (SCEECS),
3. Brunei International Conference on Engineering and Technology (BICET),
4. Wireless and Optical Communications Networks (WOCN),
5. International Conference on Communication, Computer & Power (ICCCP),
6. International Conference on High Performance Computing Simulation (HPCS),
7. International Conference on Computational and Information Sciences (ICCIS),
8. International Multi-topic conference (INMIC),
9. International Multi-Conference on Systems, Signals and Devices (SSD'14),
10. Twentieth National Conference on Communications (NCC'2014),
11. 2014 International Conference on Electronic Publishing and Information Technology (ICEPIT'14).
12. 2014 International Conference on Electronic Design 2014 (ICED'14).
13. Wireless and Optical Communications Networks (WOCN'2014),
14. 5th Brunei International Conference on Engineering and Technology (BICET-2014).
15. In the international advisory committee of First International Conference on Intelligent Engineering Systems (ZIES14 2014).
16. In the Technical Program Committee, of The SMART CITIES SYMPOSIUM, (SCS'18) 2018.

REVIEWER OF BOOKS

1. Electronics Principles by Malvino-Bates,
2. Circuit Analysis by M. Salam

SUPERVISION OF STUDENTS FROM OUTSIDE SQU

1. Adel Muhammad, "OrCAD Simulation tools and Matlab for Electronics", MIS (Aug 2016).
2. Zainab Al Malki, "Simulation tools and Packages in Electronics and PCB fabrication", Middle East College (14th February 2016-3rd February 2016).

3. Amani Mohammed Khalifa AL-Nassri, “Simulation tools and Packages for Network security”, College of Applied Sciences Ibri, (25th July 2014 - 22nd July 2014).
4. Marwa Bint Ali bin Nasir Al Shuaili, “Electronics Lab – I, Simulation, Design and Experimentation”, Sohar University, (3 July 2010-4th Aug 2010).
5. Rahma Bint Nasser bin Rashid Al Qayyumi, “Electronics Lab – II, Simulation, Design and Experimentation”, Waljat Colleges of Applied Sciences, (3 July 2010-4th Aug 2010)
6. Fatema Al Hosni, “Training on Advanced Design System (ADS) for Communications Circuits Design & Simulation”, Rustaq Technical College, (Aug 2009).
7. Achal Buchenan, “Training on Advanced Design System (ADS) for Communications circuits Design & Simulation”, IAESTE, Program, India, (July 2011-Aug 2011).
8. Complete guidance to a student, who got a French scholarship, got admission in a reputable Institute of France Telecom, in France, and successfully completed his Master’s degree and now serving his country.
9. Guidance/mentoring a female student who got completed her under graduate degree from a University, in USA after transfer of his credits (obtained at SQU) and successfully got an internship most likely by NASA, USA due to her achievements in academia.

SCHOLARLY ACHIEVEMENTS

SUMMARY:

My research focus is in Radio wave Propagation and Electronics of RF components for communication industry.

- 1) Published 20 Journal Papers, 29 conference papers, 3 books/chapters, 15 technical reports and under revision/review (2 Journals and 2 Conferences),
- 2) After joining SQU I have completed 6 research projects with 2 as PI (2 external and 4 internal),
- 3) Some publications are very well cited in reputable Journals and Conferences, with a current number of 231 citations and h-index of 7 (GOOGLE SCHOLAR) and 56 citations and h-index of 3 (SCOPUS).

At an international level, I emphasized and worked with colleagues at the Mohammad Ali Jinnah University (Pakistan) and CISCO (USA). We jointly formulated a proposal to minimize the load-shedding problems by providing a power management solution. In another research grant by SQU, I coordinated with a researcher who worked at the Pakistan Space and Upper Atmosphere Research Commission. Because of my personal motivation and initiative, this liaison facilitated further guidance for my students involved in the senior design undergraduate and graduate research projects. For another study, I worked with a peer in my area currently working at Qatar University, which brought in journal and conference publications. I was the principal investigator in two of three internally funded research projects. To continue my education, enhance my research capabilities, and keep me updated on current trends, I planned and initiated a research visit and spent (2) months at the Radio Lab, University of Calgary, Canada. This visit was very successful as I achieved three goals: (1) I learned the latest industry-oriented software (ADS®) used by the communications industry and researchers all over the world; (2) I obtained the approval from Agilent, USA, in 2009 for the donation of 35 network licenses of ADS® for our students; and (3) I led research-oriented senior design projects. After acquiring this software, I designed, developed, and offered two new courses on RF design at undergraduate and graduate levels and trained SQU and non-SQU students. I was the main supervisor of three master's students' projects and the co-supervisor of four projects. All of my graduate students are working successfully at SQU, Royal Navy of Oman, Petroleum Development Oman, Telecommunications Regulatory Authority, Schlumberger, Omantel, Ericsson, and Nawras. As an outcome of one of seven successful graduate projects, a student redesigned the bandwidth allocation at his workplace, thus saving his employer from a substantial cost (thousands of Omani rials), which had a very positive impact on society. In another project, I assisted the students (and, consequently, their employers) in designing a proper cost-effective solution for RF planning. To authenticate the findings and publicize the work at an international level, I am currently revising four journal papers, which is the outcome of master's research.

REFEREED JOURNALS PUBLICATIONS (AT SQU)

- [J1] Saqib Ali, Taisira Al Belushi, **Zia Nadir**, "Experimental Test-bed Intended for Analyzing Cyber-attacks on Power Grid Systems, submitted to Information and Computer Society, Emerald Publishing, Jan 2018.
- [J2] Saqib Ali, Taisira Al Balushi, **Zia Nadir**, Omar Khadeer Hussain, "Improving the Resilience of Wireless Sensor Networks against security threats: A Survey and Open Research Issues", The International Journal of Technology (IJTech), (print) - ISSN 2086-9614, Vol. 9, pp: 37-48, Issue: 4, 2018.
- [J3] Mohammed M. Bait-Suwailam, **Zia Nadir**, "An Enhanced RF Energy Harvesting System for Low-Power Wireless Sensors in 900 MHz Band", the International Journal of Communications, (NAUN), ISSN: 1998-4480, Vol. 8, pp. 1-7, 2014.

- [J4] **Z. Nadir**, M. Bait-Suwailam, M. Shafiq, "RF Coverage Analysis and Validation of Cellular Mobile Data using Neural Network", the International Journal of Neural Networks and Advanced Applications, (NAUN), ISSN: 2313-0563, Vol. 1, pp. 30-36, 2014.
- [J5] **Z. Nadir**, F. Touati, "Class-E Amplifier Design Improvements for GSM Frequencies", the Journal of Engineering Research (TJER), Vol. 8, No. 1, pp. 74-82, 2011.
- [J6] **Z. Nadir**, M. Idrees , "Pathloss Determination Using Okumura-Hata Model and Cubic Regression for Missing Data for Oman", Lecture notes in Engineering and Computer Science, Directory of Open Access Journals (DOAJ), Vol. 2181, No. 1, pp. 804-807, 2010.
- [J7] **Z. Nadir**, N. El Fadhil, F. Touati, "Pathloss Determination Using Okumura-Hata Model and Spline Interpolation for Missing Data for Oman" Lecture notes in Engineering and Computer Science, Directory of Open Access Journals (DOAJ), Vol. 2170, No. 1, pp. 422-425, 2008.
- [J8] F. Touati, S. Douss, **Z. Nadir**, M. Bait Suwailam and M. Loulou, "A 3 to 5 GHz UWB SiGe HBT Low Noise Amplifier for WPANs IEEE 802.15.3a Standard", Information Technology Journal, Asian Network for Scientific Information (ANSI), Vol. 6 No. 4 , pp. 579-583, 2007.
- [J9] F. Touati, S. Douss, N. Elfadil, **Z. Nadir**, M. Bait Suwailam and M. Loulou, "High Performance Optical Receivers Using Conventional Sub-Micron CMOS Technology for Optical Communication Applications", Journal of Applied Sciences, Asian Network of Scientific Information's(ANSI) Vol. 7 No. 4, pp. 559-564, 2007.
- [J10] I.A. Metwally, H. M. Al-Mandheri, A. Gastli, **Z. Nadir**, "Factors Affecting Cathodic Protection Interference", Journal of Engineering Analysis with Boundary Elements (JEABE-Elsevier), Vol. 31, No. 6, pp. 485-493, June 2007.
- [J11] I. Metwally, H. Mandheri, **Z. Nadir** and A. Gastli, "Boundary-Element Simulation of DC Stray Currents in Oil Industry due to Cathodic Protection Interference", European Transactions on Electrical Power (ETEP), Vol. 17, No. 5, pp. 486-499, October 2007.
- [J12] **Z. Nadir**, M. Suwailam, "Modal Analysis of A Cavity by TLM Method for TE Modes", The Journal of Engineering Research and Sciences (Medwell), Vol. 1, No. 1, pp. 52-55, 2006.
- [J13] **Z. Nadir**, M. Suwailam, "Modal Analysis of A Cavity by TLM Method for TM Modes", The Journal of Engineering Research and Sciences (Medwell), Vol. 1, No. 1, pp. 56-59, 2006.
- [J14] M. Salam, **Z. Nadir**, N. Fadhil, "Characterization of Flashover Voltage of A Polluted Insulator Energized With DC Voltage", Transactions on Electrical Engineering, Electronics, and Communications (ECTI-EEC), Vol. 4, No.1, pp.51-55, February 2006.
- [J15] M. Salam, N. Fadhil, **Z. Nadir**, "A Novel Approach to Predict Leakage Current in Insulators From Wind Velocity", Transactions on Electrical Engineering, Electronics, and Communications (ECTI-EEC), Vol. 4, No.1, pp. 47-50, February 2006.
- [J16] N. Elfadil, M. Salam, **Z. Nadir**, J. Rao, "Microwave Attenuation Studies Due to Rain for Communication Links Operating in Malaysia", Georgian Electronic Scientific Journal: Computer Science and Telecommunications(GESJ), Vol. 1 No. 5, pp. 9-17, 2005.
- [J17] M. Salam, H. Goswami and **Z. Nadir**, "Determination of Equivalent Salt Deposit Density Using Wind Velocity for A Contaminated Insulator", The International Journal of Electrostatics, (Elsevier), Vol. 63, No. 1, pp. 37-44, 2005.

- [J18] A. Habib, M. Salam, **Z. Nadir** and H. Goswami, “A New Method to Simplifying Boolean Functions”, The Journal of Engineering Research(TJER), Vol. 1, pp. 39-45, 2004.
- [J19] M. Salam, A. Maqrashi, N. Fadhil, **Z. Nadir** and M. Shahidullah, “Statistical Approach to Find The Empirical Relationship Between The Grounding Resistance and Length of Buried Electrode in The Soil”, World Scientific and Engineering Academy and Society, Transactions on Circuits and Systems, Included in ISI/SCI Web of Science and Web of Knowledge, Vol. 3, No. 6, pp. 1483-1486, 2004.
- [J20] H. Goswami, **Z. Nadir**, M. Salam, S. Kozaitis, “Wavelet Based Image Compression Using Perceptual Distortion Metric and Dithered Quantization Model”, World Scientific and Engineering Academy and Society, Transactions on Computers, Included in ISI/SCI Web of Science and Web of Knowledge, Vol. 2, No. 3, pp. 646-649, 2003.
- [J21] **Z. Nadir**, H. Goswami, M. Salam, “Characterization of EMC Chambers at High Frequencies and Spline Interpolation for Missing Experimental Data”, World Scientific and Engineering Academy and Society, Transactions on Communications, Included in ISI/SCI Web of Science and Web of Knowledge, Vol. 2, No. 2 and 3, pp. 166-169, 2003.

UNDER REVISION ARTICLES (JOURNALS) (AT SQU)

- [1] **Z. Nadir**, W. Rawahi, “GSM Spectrum Re-Farming for Batinah Region in Oman”.
- [2] **Z. Nadir**, M. Rashdi, A. Al Lawati, A. Ahmed, “Empirical Maximum Permissible Loss Modeling for Outdoor Wireless Links”.
- [3] **Z. Nadir**, A. Ruqeishi, Ali Al Lawati, A. Ahmed, “Characterization of Radio Propagation Pathloss- A Case Study of GSM Network of Muscat CBD Area”.

BOOK /BOOK CHAPTERS/BOOK SERIES (AT SQU)



- [B1] Saqib Ali, Taisira Al Belushi, **Z. Nadir**, Oman Muhammad, “Cyber Security for Cyber Physical Systems”, **Book** published by Springer April 2018, ISBN: 978-3-319-75880-0 (online) 978-3-319-75879-4 (Print), April 2018.



- [B2] **Z. Nadir**, M. Ahmad, “RF Coverage and Pathloss Forecast Using Neural Network”, **chapter** published in Advances in Intelligent Systems and Computing, (Book Series by Springer), ISSN: 2194-5357 (Print) 2194-5365 (Online), Vol. 240, pp. 375-384, 2014.



- [B3] **Z. Nadir**, M. Ahmad, “Characterization of Pathloss Using Okumura-Hata Model and Missing Data Prediction For OMAN”, **chapter** published in the special issue of IAENG Transactions on Engineering Technologies, The American Institute of Physics (AIP), Vol. 5; ISBN: 978-0-7354-0839-5, ISSN: 0094-243X, pp. 509-518, 2010.

INTERNATIONAL REFEREED CONFERENCES**AT SULTAN QABOOS UNIVERSITY, OMAN**

- [C1] **Z. Nadir** and H. Al Lawati, “LTE Path-Loss Prediction Models Comparative Study for Outdoor Wireless Communications”, 7th Brunei International Conference on Engineering and Technology (BICET2018), 12-14 Nov 2018.
- [C2] A. Al Saadi, M. Al Rashdi, H. Al Nassri, **Z. Nadir** and R. Mumtaz, “Impact of RF and LEDs on the Growth of the Plants”, 7th Brunei International Conference on Engineering and Technology (BICET2018) 12-14 Nov 2018.
- [C3] M. Mahajneh, M. Elfatih, M. Al Belushi, and **Z. Nadir**, “LTE Pathloss Propagation Using Cost231-Hata Model For Oman”, 9th IEEE GCC Conference” (IEEE-GCC 2017), Bahrain 9-11, May 2017.
- [C4] **Z. Nadir**, Saqib Ali, Taisira Al Belushi, “Cyber Physical Systems Security Challenges in a Smart Grid Environment”, International Conference on Renewable Energy: Generation and Applications” ICREGA’16, Belfort, France, February 8-10, 2016.
- [C5] F. Al-Kathiri, K. Al-Raisi, K. Al-Hinai, M. Al-Droushi, M. Khan, **Z. Nadir**, “Impact of RF Electromagnetic Field on Cucumber and Tomato Plants”, 7th IEEE Annual Information Technology, Electronics and Mobile Communication Conference” 7th annual IEEE-IEMCON 2016, Vancouver, Canada 13-15, October 2016.
- [C6] **Z. Nadir**, Muhammad Bait Suwailam, M. Ahmad, “Pathloss Measurements and Prediction using Statistical Models”, 2nd International Conference on Mechatronics, Electronics and Automation Engineering (ICMEAE 2015) Bangkok, Thailand, August 23-25, 2015, published in MATEC Web of conferences 54, 05006 (2016), MIMT 2016.
- [C7] M. Bait-Suwailam, D. M. Al-Abri, A. Teirab, J. Jervase, **Z. Nadir**, “Electromagnetic Interference (EMI) Radiation From Airflow Openings in Personal Computers Shielded Enclosures: An Experimental Study”, 8th IEEE GCC Conference & Exhibition, Muscat, Oman, pp:1-4; February 1-4 2015.
- [C8] M. Al-Ajmi, A. Al-Blushi, R. Al-Mamari, **Z. Nadir**, M. Bait-Suwailam, “Class-F Power Amplifier with High Power Added Efficiency for 900MHz”, Proceedings of the 2014 International IEEE Conference, “2nd International Conference on Electronic Design ICED 2014” (ICED 2014), Penang, Malaysia, pp.137-142, 19-21, August 2014.
- [C9] **Z. Nadir**, M. Suwailam, “Pathloss Analysis at 900 MHz for Outdoor Environment”, Proceedings of the 2014 International Conference on Communications, Signal Processing and Computers, (EUROPMENT 2014), ISBN: 978-1-61804-215-6, Interlaken, Switzerland, pp.182-186, 22-24 February 2014.
- [C10] A. Khayari, H. Khayari, S. Nabhani, M. Suwailam, **Z. Nadir**, “Design and Implementation of An Enhanced RF Energy Harvesting Circuit for Wireless Sensors”, 7th IEEE GCC conference and exhibition, Doha, Qatar, pp. 479-482, 17-20 Nov. 2013.
- [C11] M. Lawati, M. Busaidi, **Z. Nadir**, “RF Energy Harvesting System Design for Wireless Sensors”, 9th International Multi-Conference on Systems, Signals and Devices (IEEE-SSD’12), Chemnitz, Germany, pp. 1-4, 20-23 March 2012.
- [C12] **Z. Nadir**, “Empirical Pathloss Characterization for Oman”, IEEE Computing, Communications & Applications Conference 2012 (IEEE ComComAP 2012), HongKong University of Science and Technology, Hong Kong, China, pp. 133-137, 11-13 January 2012.

- [C13] **Z. Nadir**, "Seasonal Pathloss Modeling at 900MHz for Oman", The International Conference on Telecom Technology and Applications (ICTTA2011), Sydney, Australia, pp. 187-191, 2-3 May 2011.
- [C14] Y. Ameera, R. Iman, S. Fatema, H. Marwa, T. Farid, **N. Zia**, "High Efficiency Switching Mode Class-E Power Amplifier Design Improvements for RF", IEEE- Student conference on Research and Development (ScoreEd-09), Malaysia, pp. 1-4, 16-18 Nov, 2009.
- [C15] **Z. Nadir**, F. Touati, "Design of High Efficiency Switching Mode Power Amplifier for RF and Microwave", IEEE-16th International conference on Telecommunications (ICT'09), Morocco, pp. 329-333, 25-27 May 2009.
- [C16] M. Dhawyani, Q. Mahrooqi, F. Rahbi, A. Kalbani, F. Touati, **Z. Nadir**, "Improvement in The Efficiency of Class-E Power Amplifier for RF", IEEE-Multi conference on Systems, Signals and Devices (SSD-2008), Philadelphia University Amman campus, Jordan, pp. 491-495, 20-23 July, 2008.
- [C17] N. Elfadhil, **Z. Nadir**, F. Touati, A. Suliemani, A. Sheili, M. Gharibi, "Designing A Wireless Network for Al-Khuwair Area in The Sultanate of Oman", IEEE- Fourth International Conference on Wireless and Optical Communications Networks (WOCN-2007), Singapore, pp. 284-287, 2-4 July, 2007.
- [C18] H. Mandhary, I. Metwally, **Z. Nadir**, A. Gastli and A. Maqrashi, "Modeling of Stray-Current Corrosion in ESP Well Casings and Adjacent Cathodically Protected Pipelines", International Conference on Communication, Computer and Power (ICCCP07), Muscat, OMAN, pp. 441-446, 19-21 February, 2007.
- [C19] I. Metwally, H. Al-Mandheri, Z. Nadir and A. Gastli, "Influence of Cathodic Protection on DC Stray-Current Corrosion of Electrical Submersible Pumps", Proceedings of 5th Mansoura International Engineering Conference, Sharm El-Sheikh, Egypt, Vol. 3, pp. E38-E44, 27-31 March 2006.
- [C20] N. Elfadhil, M. Salam, A. Lawati, O. Qasmi, M. Gheithi, Z. Nadir, "Modification of an Open Area Okumura-Hata Propagation Model Suitable for Oman", (IEEE-TENCON2005), Melbourne, Australia, pp. 1-4, 21-24 November 2005.
- [C21] Z. Nadir, N. Fadhil M. Salam, "Performance Evaluation and Statistical Analysis of TEM/GTEM Cells at High Frequencies" 2nd annual International Conference on Electrical Engineering/ Electronics, Computer, Telecommunications and Information Technology (ECTI-CON2005), Pattaya, Thailand, pp. 807-810, 12-13 May 2005.
- [C22] M. Salam, N. Fadhil, **Z. Nadir**, A. Maqrashi and A. Kaf, "Measurement of Conductivity and Equivalent Salt Deposit Density of Contaminated Glass Plate", (IEEE- TENCON2004), Thailand, pp. 268-270, Vol. 3, 21-24 November 2004.
- [C23] A. Ahmad, **Z. Nadir** & A. Khan, "FPGA Based Design of Faster PN Generators for The Use of CDMA Applications", First IFIP International Conference on Wireless and Optical Communications Networks (WOCN 2004), SQU Oman, pp. 272-275, 7-9 June 2004.
- [C24] N. Fadhil, **Z. Nadir**, M. Salam, "Signal Strength Prediction For Reliable Cellular Network Design By Using Pathloss", First IFIP International Conference on Wireless and Optical Communications Networks (WOCN 2004), pp. 284-287, SQU Oman, 7-9 June, 2004.
- [C25] N. Fadhil, M. Salam, **Z. Nadir**, "Automated Knowledge Acquisition Based on Unsupervised Neural Network and Expert System Paradigms", 3rd WSEAS International Conference on Artificial Intelligence, Knowledge Engineering, Data Bases (AIKED 2004), pp. 482-487, Salzburg, Austria, February 13-15, 2004.
- [C26] M. Salam, **Z. Nadir**, M. Akbar and M. Islam, "Study the Effects of Different Types of Contaminants on the Insulator Resistance", IEEE International Conference on Electrical and Computer Engineering (ICECE'02), Dhaka, Bangladesh, pp. 240-242, 26-28 December 2002.

- [C27] **Z. Nadir**, M. Salam, M. Akbar and M. Islam, “Characterization Of Measurement Techniques Used In Electromagnetic Compatibility - Electromagnetic Coupling To Transmission Lines at High Frequencies”, IEEE International Conference on Electrical and Computer Engineering (ICECE’02), Dhaka, Bangladesh, pp. 288-291, 26-28 December 2002.

AT UNIVERSITY OF SCIENCE AND TECHNOLOGY, LILLE-1, FRANCE

- [C28] **Z. Nadir**, M. Akbar, “Introduction of Radiation Resistance in coupled Transmission Line Theory: An Experimental Description”, Fourth IEEE National MultiTopic Conference (IEEE-INMIC2000), Islamabad Pakistan, pp. 149-154, December 2000.
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- [C30] **Z. Nadir**, F. Pezin, L. Kone, B. Demoulin, “Experimental Description of Electromagnetic Coupling Occurring on Transmission Lines at High Frequencies (300MHz-10GHz)”, International Symposium on Electromagnetic Compatibility (EMC-Zurich’ 99), Zurich, Switzerland, pp. 469-474, 16-18 February 1999.
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- [R2] **Z. Nadir**, Haque Nawaz, Final Report on Internal Grant titled, “Design of Class-E Power Amplifiers with EER Linearization Technique”, 2013. [Resulted: 2 senior design projects and 4 publications (1 Journal and 2 Conference, Under review: 1 Journal)]
- [R3] **Z. Nadir**, Interim Progress Report on Internal Grant titled, “Design of Class-E Power Amplifiers with EER Linearization Technique”, 2010.
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- [R11] E. Khan, **Z. Nadir**, “Modelling Of A Bonding Wire Between Two MMIC At 110GHz”, Final MS Project, July 1995.
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- [R13] E. Khan, **Z. Nadir**, “Amplificateur de Puissance à 6.2GHz”, Project presented to a French Industry, January 1995.
- [R14] **Z. Nadir**, E. Khan, “Filtre Interdigital de type OCTL à 3.1GHz”, Project presented to a French Industry, December 1994.
- [R15] E. Khan, **Z. Nadir**, “Coupleurs à 6.2 & 6.6GHz et Diviseur de Puissance à 6.2GHz”, Project presented to a French Industry, November 1994.

PRESENTATIONS (FULL PAPER/ABSTRACT/PRELIMINARY RESULTS)**AT SULTAN QABOOS UNIVERSITY, OMAN**

- [1] **Z. Nadir**, Saqib Ali, Taisira Al Belushi, “Cyber Physical Systems Security Challenges in a Smart Grid Environment”, International Conference on Renewable Energy: Generation and Applications” ICREGA’16 , Belfort, France, February 8-10, 2016.
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- [4] **Z. Nadir**, M. Ahmad, “RF Coverage and Pathloss Forecast Using Neural Network”, 18th edition of International Conference on Systems Science (ICSS 2013, IEEE-Springer), Wrocław, Poland, September 10-12, 2013.
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- [8] **Z. Nadir**, F. Touati, “Design of High Efficiency Switching Mode Power Amplifier for RF and Microwave”, IEEE-16th International conference on Telecommunications (ICT’09), Morocco, 25-27, May, 2009.
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- [11] **Z. Nadir**, N. Fadhil, M. A. Salam, “Performance Evaluation and Statistical Analysis of TEM/GTEM Cells at High Frequencies”, 2nd annual International Conference on Electrical Engineering, Electronics, Computer, Telecommunications and Information Technology (ECTI-CON2005), Pattaya, Thailand, 12-13 May 2005.
- [12] M. Salam, N. Fadhil, **Z. Nadir**, A. Maqrashi, A. Kaf, “Measurement of Conductivity and Equivalent Salt Deposit Density of Contaminated Glass Plate”, (IEEE- TENCON2004), Thailand, 21-24 November 2004.
- [13] A. Ahmad, **Z. Nadir**, A. Khan, “FPGA Based Design of Faster PN Generators for the Use of CDMA Applications”, First IFIP International Conference on Wireless and Optical Communications Networks (WOCN 2004), Oman, 7-9 June 2004.
- [14] N. Fadhil, **Z. Nadir**, M. Salam, “Signal Strength Prediction for Reliable Cellular Network Design by Using Pathloss”, First IFIP International Conference on Wireless and Optical Communications Networks (WOCN 2004), SQU Oman, 7-9 June, 2004.

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- [15] **Z. Nadir**, M. Akbar, “Introduction of Radiation Resistance in Coupled Transmission Line Theory: An Experimental Description”, Fourth IEEE National Multi Topic Conference (IEEE-INMIC2000), Islamabad Pakistan, December 2000.

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- [17] **Z. Nadir**, L. Kone, B. Demoulin, “Comparison between Different Testing Methods Used in Electromagnetic Compatibility for Immunity Testing and Radiation Measurements”, International Symposium on Electromagnetic Compatibility (EMC-98 ROMA), Rome, Italy, 14-18 September 1998.
- [18] IEEE International Symposium on Electromagnetic Compatibility, Denver, CO, USA, 24-28 Aug 1998 (as listener).

RESEARCH GRANTS AND CONTRACT SUPPORT (AT SQU)

#	PROJECT TITLE	ROLE	FUNDING AGENCY	AMOUNT (≈USD)	DURATION STATUS	REFERENCE
1	Design of Class-E Power Amplifiers With E.E.R. Linearization Technique	Principal Investigator	Sultan Qaboos University	13000	2009-2011 Completed	IG/ENG/ECE D/09/08
2	Study of Error Detection and Correction Schemes for Fault-Tolerant Memory Systems	Co-Investigator	Sultan Qaboos University	6000	2007-2009 Completed	IG/ENG/ECE D/07/04
3	Stray-Current Corrosion Study of PDO's Well Casings and ESP Assemblies	Co-Investigator	Petroleum Development Oman-SQU	0.21 Million	2006 Completed	CTR 2004-71 (PDO) CR/ENG/ECE D/04/02 (SQU)
4	Modelling of a 3-D Cavity With the Help of TLM - Study of the Influence of Geometrical Modification of the Cavity	Principal Investigator	Sultan Qaboos University	5000	2003-2005 Completed	IG/ENG/ECE D/03/06
5	Digital System Testing – Study, Effectiveness Measurement and Implementation	Co-Investigator	Sultan Qaboos University	13000	2003-2004 Completed	IG/ENG/ECE D/02/03
6	Cyber Security for Cyber Physical Systems of Oman https://sites.google.com/site/cpsmartgrids/home	Co-Investigator	Research Council of Oman	0.25 Million	2014-2016 Completed	ORG/ICT/13/ 007
Grand Total ≈ approved (7,00,000 USD)						