Mai Ali

Instructor of Electrical Engineering
Alfaisal University, Riyadh, KSA
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Education

American University of Sharjah (AUS) 2011
MSc: **Master of Science in Electrical Engineering**
Sharjah, UAE
Concentration Electronics and Communication
GPA: 3.91

University of Khartoum 2008
BSc: **Bachelor of Science in Electrical Engineering (Honours)**
Khartoum, Sudan
Concentration Communications

Employment History

Alfaisal University **September 2015 to present**
Instructor of Electrical Engineering
Riyadh, KSA

- Responsible for lab manual formation and teaching of different electrical engineering labs including: Computer Architecture, Computer Networks, Control systems, renewable energy, data engineering.
- Established IEEE Student Branch at Alfaisal University and serving as its coordinator since inception in October 2015.
- Founder of IEEE Knowledge- hub initiative at Alfaisal University to connect undergraduate and graduate students with internal and external research projects and facilities, and centres.

Semiconductor Research Corporation **June 2012 to May 2014**
Research Associate
Sharjah, UAE

- Study the maximum capabilities of RF energy harvesting as a viable source of continuous energy for low power Wireless Sensor Networks.
- Design and implementation of high PCE RF energy harvesting system and circuits.
- Tape-out of Novel Multiband fractal-nested microstrip antenna for RF energy harvesting.
- Power Management and storage for ultra-low circuits powered by energy harvesting.
- Study of green, novel materials and structures for energy harvesting and storage.

Zain Sudan Telecommunications Company **September 2011 to January 2012**
Intern in the Radio network planning & optimization department.
Khartoum, Sudan

- Investigate frequency planning procedure and performed traffic analysis.
- Performed practical network monitoring training at NOC department, monitoring Ericsson BSS network using Ericsson Citrix server fault, performance & configuration management as well as Huawei BSS network using IManager M2000 INMS.

American University of Sharjah, College of Eng. Outreach Dept July 2010 to September 2011
ATIC Summer of Semiconductors Organizer
- Organization and teaching of *Summer of Semiconductors* program.

American University of Sharjah, College of Eng. Outreach Dept. July 2010 to September 2011
Conference Organization
- Involved in organizing many conferences held in the college of Engineering, American University of
Sharjah including: MECBME 2011, ISSE'11.

American University of Sharjah, Dept. of Electrical Eng. February 2009 to January 2011
Graduate Teaching Assistant
- Assisted in Teaching Advanced Engineering Mathematics for graduate level.
- Assisted in teaching lab courses: Electronics I, Electronics II Labs.

Honours, Awards, and Grants
- College of Engineering Research Award, 2017, Alfaisal University.
- 1st Prize of Best Poster Competition, Int. Conf. on Mechatronics Applications, Sharjah, 2010.
- 3rd Prize of student challenge in 41st European Microwave Conf., Manchester, 2011.
- Internal Research Grant (IRG16202), 35K SAR, "Ultra-Low Power Platforms for IoT Applications", Alfaisal University, 2016-2017.
- Internal Research Grant (IRG 18202), 50K SAR, "Autonomous Wearable Bio-Signals Monitoring E-Health Platform", Alfaisal University, 2018-2019.

Professional Membership
- IEEE, IEEE- Solid State Circuits Society (SSCS)

Specialized Training
Data Science Nanodegree 2018
Udacity

University of Michigan 2015
Python for Informatics
Online
ISSCC, San Francisco 2013
- Energy Harvester and Energy Processing Circuits
- Data and Power Telemetry for Implants
- RF Blocks for Wireless Transceivers
- Wireless Transceiver System Design for Modern Communication Standards

EuMC, Manchester 2013
- Radio Systems for LTE and Beyond Short Course

Khartoum 2008
Cisco Certified Network Associate Course (CCNA) Training
UKM, Kualal-umpur 2007
- Fiber Optics Training
- Radio Frequency Identification Training

Journal Publications

1. T. Gia, I. Ben Dhaou, M. Ali, A. M. Rahmani, T. Westerlund, P. Liljeberg, H. Tenhunen “Energy Efficient Fog-assisted IoT System for MonitoringDiabetic Patients with Cardiovascular Disease”, *Future Generation Computer Systems Journal*, June, 2018.

2. M. Ali, T. Gia, A. Taha, A. M. Rahmani, T. Westerlund, P. Liljeberg, H. Tenhunen, “Smart Autonomous IoT-based Health Monitoring platform”, Invited paper, IEEE Transactions on Green Communications and *Networking*, Dec., 2017.

3. T. Gia, M. Ali, I. Ben Dhaou, A. M. Rahmani, T. Westerlund, P. Liljeberg, H.Tenhunen, “IoT-Based Continuous Glucose Monitoring System: A Feasibility Study”, Procedia Computer Science, Volume 109, Pages 327-334, ISSN 1877-0509, June, 2017.

4. M. Tagadosi, L. Albasha, N. Qaddoumi, M Ali, "A Novel Miniaturized Printed Elliptical Nested Fractal Multiband Antenna for Energy Harvesting Applications", *IET Microwave, Antennas, and Propagations*, Feb., 2015.

Conference Papers

1. M. Ali, T. Gia, A. Taha, A. M. Rahmani, T. Westerlund, P. Liljeberg, H. Tenhunen, “Autonomous Patient/Home Health Monitoring powered by Energy Harvesting”, GlobeCom, Singapore, Dec., 2017.

2. M. Ali, L. Albasha , N. Qaddoumi, “RF Energy Harvesting for Autonomous Wireless Sensor Networks”, Design & Technology of Integrated Systems in nanoscale era , Abu Dhabi, UAE. March, 2013.

3. M. Ali, L. Albasha, N. Qaddoumi, “Design and Optimization of an RF Energy
4. Harvesting System from Multiple Sources”, SPIE Microtechnologies, Grenoble, France, April, 2013.

5. M. Ali, N. Obaid, L. Albasha and N. Qaddoumi, "Enhanced efficiency threshold cancellation based rectifier for RF energy harvesting applications," 2013 IEEE 20th International Conference on Electronics, Circuits, and Systems, Abu Dhabi, 2013

6. K. Ibrahim, E. A. E. Ghanam, M. Ali, L. Albasha and N. Qaddoumi, "Efficiency analysis of harvester circuits," 2013 IEEE 20th International Conference on Electronics, Circuits, and Systems (ICECS), pp. 799-802, Abu Dhabi, 2013.

7. M. Ali, L. Albasha, H. Alnashash, "A Bluetooth low energy subcutaneous low power transmitter", European Microwave Conf., Manchester, UK, Oct., 2011.

8. M. Ali, L. Albasha , H. Alnashash, " A System Study of A Wireless Subcutaneous Transmitter", *Int. Conf. on Mechatronics Applications*, Sharjah, UAE, April, 2010.

Book Chapters

M. Ali, A. M. Taha, "Wireless networks employing renewable energy sources for industrial applications: innovations, trade-offs and operational considerations", Book Chapter, Renewable Energy Technologies for Water Desalination , CRC Press, May, 2017, ISBN 9781138029170

Technical Skills and Qualifications

- Microsoft's MS Office (Excel, Word, Access, Project, and PowerPoint).

Engineering

- Design Software skills: MATLAB/SIMULINK, COMSOL, PSPICE, AWR, Synopsys, ADS, Python, Cadence, HFSS.
- Advanced Digital Communications (Link Budget Calculations), Advanced Computer Networks, RFIC Design, Advanced Electromagnetics (Antenna design and Satellite Communications).

Soft Skills

- Presentation skills
- Team player
- Ability to apply academic knowledge to real life situations
- Result oriented
- Meet deadlines and performing well under pressure

Languages

- Arabic (Fluent), Mother Tongue.
- English (Fluent), IELTS Academic: 8
- French (Basic)

Professional Membership

- IEEE
- IEEE- Solid State Circuits Society (SSCS)
- IEEE WIE Affinity Group
- IEEE Young Professionals

References

- Dr. Lutfi Albasha, Assistant Professor, Department of Electrical Engineering College of Engineering, American University of Sharjah
P.O. Box 26666 Sharjah, United Arab Emirates.
E-mail: lalbasha@aus.edu, Phone: +(971) 6 515 2980, Fax: +(971) 6 515 2979

- Dr. Mohamed El-Tarhuni, Associate Professor and Department Head, Department of Electrical, Engineering College of Engineering American University of Sharjah
P.O. Box 26666 Sharjah, United Arab Emirates.
E-mail: mtarhuni@aus.edu, Phone: +(971) 6 515 2944, Fax: +(971) 6 515 2979

* Other Available Upon Request