Osama Mahmoud Bushnaq

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HIGHLIGHTS OF QUALIFICATIONS

- Ph.D. Student in Electrical Engineering at King Abdullah University of Science and Technology.
- Research interest includes statistical signal processing, sensor networks, wireless communications and graph processing.
- Work experience in RF optimization for GSM and HSPA cellular systems. Also, good knowledge in other telecom technology standards such as LTE, WCDMA, Wi-Fi and WiMax.
- Robust understanding of the OSI Model, TCP/IP protocols, LAN/WAN/MAN networking solutions, switching, routing and network troubleshooting.
- General knowledge in Management principles and Project Management.
- Proven analytical thinker, adaptable, curious and motivated which is shown in various parts of my studies. Enthusiastic and passionate. Good communication skills, creative and organized.
- Quick and self-learner, responsible and trustworthy.

COMPUTER SKILLS

C/C++, OpenGL, Matlab, Simulink, Linux/Unix, Assembly programming, Wireshrak, NS2 (Network simulator), AIRCOM International, Agilent Technologies, ADS, OptiSystem, AutoCAD, National instruments (MultiSim), MS office, Visio.

EDUCATION

PhD in Electrical Engineering *Aug, 2015 – Dec, 2019* (*Expected*)
KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, Thuwal, KSA

- Majoring in statistical signal processing, sensor networks, and graph processing
- 4/4 GPA

Masters of Electrical Engineering
University of New Brunswick, Fredericton, NB, Canada *Sep, 2013 – Dec, 2014*

- Majoring in Communications Engineering
- 4.04/4 GPA

Bachelor of Science in Engineering *Sep, 2007 – Jan, 2012*
PRINCESS SUMAYA UNIVERSITY FOR TECHNOLOGY, Amman, Jordan

- Majoring in Communications Engineering
- Qualified program from "Accreditation Board for Engineering and Technology (ABET)" organization
- 91.2% GPA, 4th out of 120 graduates

ACADIMIC PROJECTS

- Hardware implementation of FFT/IFFT with CORDIC algorithm using C++
- MIMO channel Modeling using LMS Adaptive Filters – Developed a Matlab program to simulate MIMO channel connecting an LTE base station to an access point that serves a Pico-cell. Least mean squares adaptive filters were used to model the channel
- Free Space optics (FSO) –designed, optimized and analyzed the operation of FSO link using OptiSystem and Matlab software
- Voltage controlled Oscillator – tunable common collector Colpitts VCO was designed, fabricated and tested.

AWARDS AND ACHIEVEMENTS

- The KAUST Fellowship *Aug, 2015 – Dec, 2019 (Expected)*
- Top Talent Cisco Student *May, 2011*
- Scholarship for Academic Excellence *Sep, 2007 – Jan, 2012*

WORK EXPERIENCE

Research Assistant
King Abdullah University of Science and Technology, Thuwal, KSA *Aug, 2015 – Present*

- Designed a power efficient technique for Unmanned Aerial Vehicle (UAV) data hovering from Wireless Sensor Network.
- Optimized sensor location/power rating for temporally-correlated source estimation (*Published in SPAWC 2017 conf.*).

Researcher (Internship)
Delft University of Technology, Delft, the Netherlands *Jun, 2016 – Aug 2016*

- Optimized sensor placement and type selection in a wireless sensor network to maximize distributed estimation accuracy under practical constraints (*Published in EUSIPCO 2017 conf.*).

Research Assistant
University of New Brunswick, Fredericton, NB *Jan, 2014 – Jul 2014*

- Worked with a group of engineers for Siemens Canada to develop Digital Signal Processing algorithms to analyze power measurements.
- Developed a user friendly program to estimate different power values with error measurements.

Teaching Assistant
University of New Brunswick, Fredericton, NB *Sep, 2013 – Dec, 2013*

- Teaching Assistance for Communication Networks and Computer Organization courses.
- Required to thoroughly understand and explain the lab experiments to students in a way they can understand
- Assisted students with lab experiments to ensure they had a good understanding of the class projects.
- Accurately marked lab reports, and returned them to students in a timely manner.

RF Optimization Engineer
Zain Telecom Company, Amman, Jordan *Apr, 2012 – Jun, 2012*

- Received customer complains regarding network coverage from the call center team and contacted customers to fix the telecommunication coverage problems in their premises.
- Tested the received radio signal at customer premises and determined the connection problem(s).
- Adjusted system parameters (such as signal frequency, power, antenna angle and tilt, etc.) to optimize the network coverage.

CERTIFICATIONS AND TRANING

Quality Assurance Engineer, Huawei Technology Co., Amman, Jordan *Mar, 2012 – Apr, 2011*

Networking trainee, Orange Telecom, Amman, Jordan *Jun, 2011 – Aug, 2011*

Cisco Certified Network Associate (CCNA) Oct, 2010

EXTRA-CURRICULUM ACTIVITIES

- Amman Tech Tuesday (AmmanTT) – worked with a team to organize tech seminars. *2012 – 2013*
- IEEE KAUST Student Chapter. *2017 – 2018*

LANGUAGES

- Arabic: Native
- English: Advance