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Founder of the smart IoT systems group, website: <https://sites.google.com/view/siots>

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AWARDS AND SCHOLARSHIPS

June 2018	Recognition for contributions from Hamad Medical Corporation (HMC)
June 2018	College of Engineering excellence award academic/services, QU
April 2018	Best paper award World Telecom Symposia 2018 (WTS).
June 2017	College of engineering excellence award academic/research, QU
June 2017	Supervising best senior project from CSE department, QU
June 2017	Organizing the best symposium at the IWCMC conference from IEEE
March 2017	Supervising best project in the UREP competition from QNRF
July 2015	Best paper award IEEE IFIP NTMS conference, Paris, France
May 2013	Best poster for grad student from Qatar Univ., graduate studies forum, QU
May 2013	Best poster for researcher from Qatar Univ, researchers day, QU
June 2012	Best researcher from CSE department, QU
June 2011	Supervising best Senior project in the CSE department, QU
May 2011	Best poster from Zayed univ in URC2011 conference
March 2011	3rd place in the 3rd UREP competition
June 2010	Best researcher from CSE department, QU
May 2010	Best presentation from Zayed univ in URC2010 conference
2002-2006	Tuition award from ECE-UBC
2001 and 2003	2 Project team success awards from IBM Canada

Nov 2005 Best paper for the month from the Global Engineering, Science, and
Technology Society (GEST) Int. Transactions, Computer S & E
April 2004 [Thank you individual award from IBM Canada](#)

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EDUCATION

August 2006 **Ph.D. in Electrical and Computer Engineering.**
The University of British Columbia, Vancouver, B.C.

- Thesis title: Utility-based Resource and QoS Optimization in Wired and Wireless Networks
- Research Areas: Ad hoc networks, Wireless LANs, real time broadcast/multicast, resource optimization, QoS.

My thesis research focused on designing resource optimization methods for wired and wireless networks. Work in my thesis includes the development of a set of algorithms for QoS-based classification/partitioning for wired networks, and a set of decentralized algorithms for end-to-end resource allocation in wireless ad hoc networks.

My work as a Research Assistant during my PhD required me to participate in the design and implementation of a WLAN 802.11 prototype access point for educational purposes. Working in this project has exposed me to all the MAC layer aspects of wireless communication systems. Also, in this project I am participating with a team performing different system implementation activities including an implementation of the PHY and parts of the MAC using VHDL on Xilinx FPGA and a Real Time firmware implementation of the MAC on VxWorks for PowerPC processor.

September 2001 **M.A.Sc. Degree in Electrical and Computer Engineering**
University of British Columbia

- Thesis title: Novel Push-Model Framework For Realizing Multi-Service MPEG4 Streams In Broadcast Applications
- Project description: Implemented a new Framework for broadcasting multi-session MPEG4 objects over IP networks.
- Contributed the implementation to the MPEG group (IM1 reference S/W).
- Grade: 93% (A+).

June 1993 **B.A.Sc. Degree in Electronics and Electrical Communications Engineering,**
Faculty of Engineering, Cairo University.

- Graduation grade: Distinction with Honors.
- Graduation project title: Automatic Testing Equipment (ATE).
- Project grade: Distinction.

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PROFESSIONAL WORK EXPERIENCE

June 19 **Professor, Qatar University, Doha, Qatar.**
Sept 14 **Associate professor, Qatar University, Doha, Qatar**
Sept 07 **Assistant professor, Qatar University, Doha, Qatar**
to date

- Research in the areas of Internet of things (IoT), and IoT security, Artificial Intelligence, smart Health, and surveillance, wireless sensor networks, resource optimization in ad hoc networks, resource allocation and routing in wireless mesh networks, applications of wireless sensor networks for vertical industries including healthcare, oil/gas, and industrial control.
- Teaching and developing curriculum for computer networks & security, and object oriented programming undergrad courses, and advanced computer networks, Network security, and wireless networks for grad.
- Member/chair in the department committees:

- Strategic planning committee (chair): participate in the development of the department strategic plan.
- Research committee (chair): coordinating departmental research initiatives with internal and external entities, coordinating research activities and groups in the department.
- Quality assurance, and curriculum (member): curriculum changes, and coordinating ABET accreditation activities.
- Senior project committee (member): participate in the development of policies and regulations pertaining to students' senior design projects.
- Graduate committee (chair): coordinating master/PHD student applications, study plans, and updating graduate program curricula.
- Recruitment committee (member): managing departmental faculty/staff applications, and coordinating interviews, etc.
- Participating in university committee for vetting research grant proposals for national priority research program (NPRP) verifying research proposals according to university rules and regulations.
- Director of the Cisco regional academy in the college of engineering:
 - Managing and administering Cisco certification program for the whole area of Qatar.
 - Defining strategic planning for running the regional academy including marketing, recruitment of local academies, and planning internal and external events to promote the academy initiative in and outside of Qatar University.
 - Coordinating more than 15 CCNA and IT Essentials classes for students and instructors in 3 local academies at Qatar University.
 - Supporting the operation of 6 external local academies universities, educational, and industrial training institutes in Doha.
- Technical consultant for the wireless innovations center at Qatar science and technology park:
 - Technical lead and project lead architect for industrial projects in healthcare and healthy lifestyle for athletes, monitoring and tracking using ECG and accelerometer sensors.
 - Conducting research in the areas of Wireless sensor networks for telemedicine, Oil/Gas, Environment, and Industrial control.

Jan. 00 – **Advisory IT specialist, IBM/VIC, Vancouver, Canada**

Aug 07 Roles/duties include:

- Senior IT Specialist with technical leadership in eBusiness integration and custom applications development.
- Extensive experience in eHealth, clinical information systems, and HL7 standards.
- Distributed application design and implementation using C++, Perl, and MQSeries over windows XP & AIX.
- Research in teleconferencing applications using H.323, and MPEG4.
- Java Socket programming for SNMP power monitor systems using Visual Age java.
- COM and MTS programming using VisualBasic, XML, XSLT.
- Software development for e-business using net.commerce, net.data, IBM websphere. Participated in number of e-business projects (e.g. MEC, facecake, statefarm).

Apr. 98 – **Software engineer, IBM/ISM T&T, Vancouver, Canada**

Jan. 00 Duties/Achievements Included:

- Database design and application development for Air Canada “cyber ticket office” web site. This included 4 projects provided functionality for frequent flyers program, personal profile, and online reservations etc.

- Design, implementation and maintenance of several Database application servers under Unix and Windows NT using Visual Age C++ and DB2.
 - Design, implementation, and maintenance of SMTP Winsock applications under Windows NT Using Visual Age C++.
- Aug. 96 – **IBM WTC, Egypt branch, Cairo, Egypt**
 Jan. 98 Duties included:
- Analysis, design and implementation of several multi-platform client/server projects
 - Object oriented modeling and development of multiple OO frameworks using VisualAge C++ under OS/2 and Windows 95
 - Database design and development using DB2/2
 - Web development using JAVA.
 - NLS (National language support) concepts
 - IBM REXX programming
 - Web development using ASP.
- Jan. 96 - **ICCC Cairo, Cairo, Egypt**
 Aug. 96 (Danish company provides S/W and H/W solutions in the field of internetworking and communication equipment e.g. Routers, Hubs, Gateways, etc. for Ericsson Denmark which is ICCC major client)
- Developed virtual device drivers for Audio and Network Cards for use on different platforms (Windows 95 with PnP support, Windows 3.1 standard mode and enhanced mode) using Borland C++ 5.0 and DDK for VxDs
- Dec. 94 - **House of System Technology (HOSTEK), Cairo, Egypt**
 Sep. 95 • Developed Multimedia encyclopedias using Visual Basic.

• Teaching Assistant

- Jan 01 – Sept 05 **University of British Columbia (UBC)**
- Taught computer engineering courses including “real-time systems” and “embedded systems”.
 - Graduate seminars about “Video streaming”, “QoS in optical WDM networks”, and “Resource optimization in wireless Ad hoc networks”.
- Dec. 94 - Feb. 98 **National Telecommunication Institute (NTI)**
- Taught Computer Networks courses addressing network protocols such as TCP/IP, Frame relay, ATM, etc.
 - Participated in national research projects in networks planning using simulation software, Opnet Modeler and Opnet Planner.

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PUBLICATIONS

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- Google scholar** http://scholar.google.ca/citations?hl=en&user=syE1zLsAAAAJ&view_op=list_works&authuser=1
- Scopus** <https://www.scopus.com/authid/detail.uri?authorId=55763482600>

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THESIS WRITING

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- [1] A. Mohamed, “[Utility-based Resource and QoS Optimization in Wired and Wireless Networks](#)”, PhD thesis, UBC, Aug., 2006.
- [2] A. Mohamed, “[Novel Push-Model Framework For Realizing Multi-Service MPEG4 Streams In Broadcast Applications](#)”, M.A.Sc Thesis, UBC, Sept., 2001.

[\[UP\]](#)**BOOKS**

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- [1] Amr Mohamed, "[Energy Efficiency of Medical Devices and Healthcare Applications](#)", publisher Elsevier academic press, ISBN: 9780128190456, published date March 2020.
 - [2] Amr Mohamed, "[Utility-Based Resource and QoS Optimization in Packet Networks - Link and Network Level Optimization](#)", publisher VDM Verlag, ISBN: 978-3639044461, September 2008.

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- [3] Heena Rathore, Amr Mohamed, Mohsen Guizani, "[Blockchain applications for healthcare](#)", in book Energy Efficiency of Medical Devices and Healthcare Applications Elsevier academic press, March 2020.
 - [4] Abderrazak Abdaoui, Abdulla Al-Ali1, Ali Riahi, Amr Mohamed, Xiaojiang Du, Mohsen Guizani, "[Secure medical treatment with deep learning on embedded board](#)", in book Energy Efficiency of Medical Devices and Healthcare Applications Elsevier academic press, March 2020.
 - [5] Heena Rathore, Amr Mohamed, Mohsen Guizani, "[Deep learning-based security schemes for implantable medical devices](#)", in book Energy Efficiency of Medical Devices and Healthcare Applications Elsevier academic press, March 2020.
 - [6] Alaa Awad Abdellatif, Amr Mohamed, Carla Fabiana Chiasserini, Aiman Erbad, Mohsen Guizani, "[Edge computing for energy-efficient smart health systems: data and application-specific approaches](#)", in book Energy Efficiency of Medical Devices and Healthcare Applications Elsevier academic press, March 2020.
 - [7] Abeer Al-Marridi, Amr Mohamed, Aiman Erbad, "[AI-based techniques on edge devices to optimize energy efficiency in m-Health applications](#)", in book Energy Efficiency of Medical Devices and Healthcare Applications Elsevier academic press, March 2020.
 - [8] Hafiz Yasar Lateef, Carla Fabiana Chiasserini, **Amr Mohamed**, Mohsen Guizani and Mischa Dohler, "[Towards Energy-Aware 5G Cellular Networks](#)", in book Energy Management in Wireless Cellular and Ad-hoc Networks, Springer, 2015.
 - [9] M. Majid Butt, Ioannis Krikidis, **Amr Mohamed**, Mohsen Guizani, "[RF Energy Harvesting Communications: Recent Advances and Research Issues](#)", in book Energy management in wireless cellular and ad-hoc networks, published by Springer and edited by M. Z. Shakir, M. A. Imran, K. A. Qaraqe, M. S. Alouni and A. Vasilakos, 2015.

[\[UP\]](#)**INTERNATIONAL JOURNALS**

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- [1] Abeer Z Al-Marridi, Amr Mohamed, and Aiman Erbad, "Reinforcement learning approaches for efficient and secure blockchain-powered smart health systems", published in Elsevier computer networks, Vol 197, October 2021.
 - [2] Omar Elharrouss, Noor Almaadeed, Khalid Abualsaud, Ali Al-Ali, Amr Mohamed, Tamer Khattab, Somaya Al-Maadeed "[Drone-SCNet: Scaled Cascade Network for Crowd Counting on Drone Images](#)", published in IEEE Transactions on Aerospace and Electronic Systems, June 2021.
 - [3] Emna Baccour, Fatima Haouari, Aiman Erbad, Amr Mohamed, Kashif Bilal, Mohsen Guizani, Mounir Hamdi, "[An Intelligent Resource Reservation for Crowdsourced](#)

- [Live Video Streaming Applications in Geo-Distributed Cloud Environment](#)", published in IEEE systems journal, June 2021.
- [4] Mohamed Jouhari, Abdulla Al-Ali, Emna Baccour, Amr Mohamed, Aiman Erbad, Mohsen Guizani, Mounir Hamdi, "[Distributed CNN Inference on Resource-Constrained UAVs for Surveillance Systems: Design and Optimization](#)" published in IEEE Internet of Things Journal, May 2021.
 - [5] Ali Hamdi, Khaled Shaban, Abdelkarim Erradi, Amr Mohamed, Shakila Khan Rumi, and Flora D. Salim, "[Spatiotemporal data mining: a survey on challenges and open problems](#)", published in Springer Artificial Intelligence Review journal, April, 2021. (IF: 5.747)
 - [6] Alaa Awad Abdellatif, Carla-Fabiana Chiasserini, Francesco Malandrino, Amr Mohamed, Aiman Erbad, "[Active Learning with Noisy Labelers for Improving Classification Accuracy of Connected Vehicles](#)", published in IEEE Transactions on Vehicular Technology, March 2021. (IF: 5.379)
 - [7] Zina Chkirbene, Alaa Awad, Amr Mohamed, Aiman Erbad, Mohsen Guizani, "[Deep Reinforcement Learning for Network Selection over Heterogeneous Health Systems](#)", published in IEEE Transactions on Network Science and Engineering, February 2021. (IF: 5.213)
 - [8] Heena Rathore, Amr Mohamed, Mohsen Guizani, Shailendra Rathore, "[Neuro-fuzzy analytics in athlete development \(NueroFATH\): a machine learning approach](#)", published in springer Neural Computing and Applications, February 2021. (IF: 4.774)
 - [9] Naram Mhaisen, Alaa Awad, Amr Mohamed, Aiman Erbad, Mohsen Guizani, "[Optimal User-Edge Assignment in Hierarchical Federated Learning based on Statistical Properties and Network Topology Constraints](#)", published in IEEE Transactions on Network Science and Engineering, February 2021. (IF: 5.213)
 - [10] Alaa Awad Abdellatif, Lutfi Samara, Amr Mohamed, Aiman Erbad, Carla Fabiana Chiasserini, Mohsen Guizani, Mark Dennis O'Connor, James Laughton, "[MEdge-Chain: Leveraging Edge Computing and Blockchain for Efficient Medical Data Exchange](#)", published in IEEE Internet of Things Journal, February 2021. (IF: 9.936)
 - [11] Lamiaa Basyoni, Aiman Erbad, Masha'al Alsabah, Noora Fetais, Amr Mohamed, Mohsen Guizani, "[QuicTor: Enhancing Tor for Real-Time Communication Using QUIC Transport Protocol](#)", published in IEEE access, P:28769 - 28784, Vol:9, February 2021. (IF: 3.745)
 - [12] Aliya Tabassum, Aiman Erbad, Amr Mohamed, and Mohsen Guizani, "[Privacy-Preserving Distributed IDS Using Incremental Learning for IoT Health Systems](#)", published in IEEE Access, vol:9, pages: 14271-14283, January, 2021. (IF: 3.745)
 - [13] Jaspreet Singh, Yahuza Bello, Ahmed Refaey, Aiman Erbad, and Amr Mohamed, "[Hierarchical Security Paradigm for IoT Multi-access Edge Computing](#)", published in IEEE Internet of Things Journal, 10.1109/JIOT.2020.3033265, October, 2020. (IF: 9.936)
 - [14] Mhd Saria Allahham, Alaa Awad Abdellatif, Amr Mohamed, Aiman Erbad, Elias Yaacoub, Mohsen Guizani, "[I-SEE: Intelligent, Secure and Energy-Efficient Techniques for Medical Data Transmission Using Deep Reinforcement Learning](#)", Published in Internet of Things Journal, Early access, DOI: 10.1109/JIOT.2020.3027048, Sept, 2020. (IF: 9.936)
 - [15] Zina Chkirbene, Aiman Erbad, Ridha Hamila, Ala Gouisseem, Amr Mohamed, and Mounir Hamdi, "[Machine Learning Based Cloud Computing Anomalies Detection](#)",

- published in IEEE Network Magazine, Volume: 34, Issue: 6, November 2020. (IF: 7.503)
- [16] Zina Chkirbene, Aiman Erbad, Ridha Hamila, Ala Gouissem, Amr Mohamed, Mohsen Guizani, and Mounir Hamdi, “[A Weighted Machine Learning-Based Attacks Classification to Alleviating Class Imbalance](#)”, published in IEEE Systems Journal, November, 2020.
 - [17] Emna Baccour, Aiman Erbad, Amr Mohamed, Mohsen Guizani, and Mounir Hamdi, “[Collaborative hierarchical caching and transcoding in edge network with CE-D2D communication](#)”, published in Journal of Network and Computer Applications, September, 2020. (IF: 5.570)
 - [18] Emna Baccour, Aiman Erbad, Amr Mohamed, Fatima Haouari, Mohsen Guizani, Mounir Hamdi, “[RL-OPRA: Reinforcement Learning for Online and Proactive Resource Allocation of crowdsourced live videos](#)”, published in Elsevier Future Generation Computer Systems, Vol 112, P 982-995, November 2020. (IF: 5.768)
 - [19] Kamran Zahoor, Kashif Bilal, Aiman Erbad, Amr Mohamed, “[Service-Less Video Multicast in 5G: Enablers and Challenges](#)”, published in IEEE Network magazine, Volume: 34, Issue: 3, June 2020. (IF: 7.503)
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 - [23] Mohammed Ali Al-Garadi, Amr Mohamed, Abdulla Al-Ali, Xiaojiang Du, Ihsan Ali, Mohsen Guizani, “[A Survey of Machine and Deep Learning Methods for Internet of Things \(IoT\) Security](#)”, in IEEE Communications Surveys & Tutorials journal, DOI: 10.1109/COMST.2020.2988293, Vol: 22, Issue: 3, August 2020. (IF: 23.7)
 - [24] Emna Baccour, Aiman Erbad, Kashif Bilal, Amr Mohamed, Mohsen Guizani, “[PCCP: Proactive Video Chunks Caching and Processing in Edge Networks](#)”, published in Elsevier Future Generation Computer Systems, Vol 105, P 44-60, April 2020. (IF: 5.768)
 - [25] Heena Rathore, Amr Mohamed, and Mohsen Guizani, “[A Survey of Blockchain Enabled Cyber-Physical Systems](#)”, published in MDPI Sensors journal, January 2020. (IF: 3.031)
 - [26] Ahmed M. Salama, Islam Samy, Ahmed El Shafie, Amr Mohamed, Tamer Khattab, “[Centralized and Distributed Cognitive Relay-Selection Schemes for SWIPT Cognitive Networks](#)”, published in IEEE Transactions on Communications. Vol: 67, Issue: 11, PP. 7431 - 7443. 10.1109/TCOMM.2019.2936562, Nov 2019. (IF: 5.69)
 - [27] Reza Shakeri, Mohammed Ali Al-Garadi, Ahmed Badawy, Amr Mohamed, Tamer Khattab, Abdulla Al-Ali, Khaled Harras, and Mohsen Guizani, “[Design Challenges of Multi-UAV Systems in Cyber-Physical Applications: A Comprehensive Survey](#)”,

- [and Future Directions](#)”, published in IEEE Communications Surveys & Tutorials journal, Vol: 21, Issue: 4, PP: 3340 – 3385, DOI: 10.1109/COMST.2019.2924143, June, 2019. (IF: **22.973**)
- [28] MHD Saria Allahham, Mohammad F. Al-Sa'd, Abdulla Al-Ali, Amr Mohamed, Tamer Khattab, Aiman Erbad, “[DroneRF dataset: A dataset of drones for RF-based detection, classification and identification](#)”, published in Elsevier Data in Brief journal, ISSN: 2352-3409, Vol: 26, Page: 104313, August 2019.
- [29] Mohammad F. Al-Sa'd, Abdulla Al-Ali, Amr Mohamed, Tamer Khattab, Aiman Erbad, “[RF-based drone detection and identification using deep learning approaches: An initiative towards a large open source drone database](#)”, published in Future Generation Computer Systems journal, Vol 100, Pages 86-97, May 2019. (IF: **5.768**)
- [30] Ahmed Saeed, ahmed Abdulkader, Mouhyemen khan, Azin Neishaboori, Khaled a. Harras, Amr Mohamed “[On Realistic Target Coverage by Autonomous Drones](#)”, published in ACM transactions on sensor networks, Volume 15 Issue 3, August 2019.
- [31] Kashif Bilal, Emna Baccour, Aiman Erbad, Amr Mohamed, Mohsen Guizani “[Collaborative joint caching and transcoding in mobile edge networks](#)”, accepted in the Elsevier Journal of Network and Computer Applications, March 2019. (IF: **5.273**)
- [32] Heena Rathore, Abdulla Al-ali, Amr Mohamed, Xiaojiang Du, and Mohsen Guizani “[A Novel Deep Learning Strategy for Classifying Different Attack Patterns for Deep Brain Implants](#)”, IEEE Access journal, vol 7, P 24154 - 24164, February 2019. (IF: **4.098**)
- [33] Taha Belkhouja, Xiaojiang Du, Amr Mohamed, Abdulla K. Al-Ali, Mohsen Guizani, “[Biometric-based authentication scheme for Implantable Medical Devices during emergency situations](#)”, published in Elsevier future generation computer systems, February 2019. (IF: **5.768**)
- [34] Alaa Awad Abdellatif, Amr Mohamed, Carla Fabiana Chiasserini, Mounira Tlili, and Aiman Erbad, “[Edge Computing for Smart Health: Context-aware Approaches, Opportunities, and Challenges](#)”, published in IEEE Network Magazine, March 2019. (IF: **7.503**)
- [35] Amith Khandakar and Amr Mohamed, “[Understanding Probabilistic Cognitive Relaying Communication with Experimental Implementation and Performance Analysis](#)”, in MDPI sensors journal, special issue on Sustainable Internet of Things Empowered by Cognitive Radio Sensor Network, vol 19, issue 1, January 2019. (IF: **3.031**)
- [36] Heena Rathore, Chenglong Fu, Amr Mohamed, Abdulla Al-Ali, Xiaojiang Du, Mohsen Guizani, Zhengtao Yu, “[Multi-layer security scheme for implantable medical devices](#)”, published in Springer Neural Computing and Applications journal, October 2018. (IF: **4.664**)
- [37] Alaa Awad Abdellatif, Ahmed Emam, Carla-Fabiana Chiasserini, Amr Mohamed, Ali Jaoua, Rabab Ward, “[Edge-based Compression and Classification for Smart Healthcare Systems: Concept, Implementation and Evaluation, Expert Systems With Applications](#)”, (2018), published in Elsevier expert systems with applications, doi: <https://doi.org/10.1016/j.eswa.2018.09.019>, September, 2018. (IF: **4.292**)
- [38] Heena Rathore , Lothar Wenzel , Abdulla Khalid Al-Ali , Amr Mohamed , Xiaojiang Du , Mohsen Guizani, “[Multi-Layer Perceptron Model on Chip for Secure Diabetic Treatment](#)”, published in IEEE access journal, vol: 6, Pages: 44718 – 44730, July 2018. (IF: **4.098**)

- [39] Ahmed Ben Said, Mohammad Fathi Al-Sa'd, Mounira Tlili¹, Alaa Awad Abdellatif, Amr Mohamed, Tarek Elfouly, Khaled Harras, And Mark Dennis O'connor "[A Deep Learning Approach for Vital Signs Compression and Energy Efficient Delivery in mHealth Systems](#)", published in IEEE access journal, vol: 6, Pages: 33727 – 33739, May 2018. (IF: 4.098)
- [40] Belkhouja T, Du X, Mohamed A, Al-Ali AK, Guizani M., "[Symmetric Encryption Relying on Chaotic Henon System for Secure Hardware-Friendly Wireless Communication of Implantable Medical Systems.](#)", MDPI Journal of Sensor and Actuator Networks; 7(2):21, May 2018.
- [41] Alaa Awad Abdellatif, Mohammad Galal Khafagy, Amr Mohamed, and Carla-Fabiana Chiasserini, "[EEG-based Transceiver Design with Data Decomposition for Healthcare IoT Applications](#)", Published in IEEE Internet of Things journal, Vol 5 , Issue 5, Oct 2018. (IF: 9.515)
- [42] Abdulrahman Fahim, Tamer ElBatt, Amr Mohamed, Abdulla Al-Ali, "[Towards Extended Bit Tracking for Scalable and Robust RFID Tag Identification Systems](#)", Published in IEEE access journal, vol: 6, Pages: 27190 – 27204, May 2018. (IF: 4.098)
- [43] Mahdi Ben Ghorbel, Bechir Hamdaoui, Mohsen Guizani, Amr Mohamed, "[Long-Term Power Procurement Scheduling Method for Smart-Grid Powered Communication Systems](#)", published in IEEE transactions on wireless communications, Vol: 17, Issue: 5, Pages: 2882 – 2892, February 2018. (IF: 6.394)
- [44] Alaa Awad Abdellatif, Amr Mohamed, Carla-Fabiana Chiasserini "[User-Centric Networks Selection with Adaptive Data Compression for Smart Health](#)", published in IEEE Systems journal, Issue 99, pages 1-12, Dec 2018. (IF: 4.463)
- [45] Mouhyemen Khan, Karel Heurtefeux, Amr Mohamed, Khaled A. Harras, Mohammad Mehedi Hassan, "[Mobile Target Coverage & Tracking on Drone-Be-Gone UAV Cyber Physical Testbed](#)", published in IEEE Systems journal, vol: 12, Issue 4, pages 3485 - 3496, Dec 2018. (IF: 4.463)
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- [80] Ahmed El Shafie, Mahmoud Ashour, Tamer Khattab, **Amr Mohamed**, "Optimal Spectrum Access for a Rechargeable Cognitive Radio User Based on Energy Buffer State", accepted in the international conference on Computing, Networking and Communications, IEEE ICNC February 2015.
- [81] Mahmoud Ashour, Ahmed El Shafie, **Amr Mohamed**, Tamer Khattab, "Power-Optimal Feedback-Based Random Spectrum Access for an Energy Harvesting Cognitive User", accepted in the international conference on Computing, Networking and Communications, IEEE ICNC February 2015.
- [82] Ahmed Anwar, Ahmed El Shafie, **Amr Mohamed**, Tamer ElBatt, Mohsen Guizani, "Interference-Based Optimal Power-Efficient Access Scheme for Cognitive Radio

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- [83] Hafiz Yasar Lateef, Carla Fabiana Chiasserini, Tamer Elbatt, **Amr Mohamed**, and Mohsen Guizani, “Towards Energy Efficient Relay Placement and Load Balancing in Future Wireless Networks”, Accepted in IEEE Personal Indoor and Mobile Radio Communications (IEEE PIMRC 2014), Washington DC, USA, 2014.
 - [84] M. Majid Butt, Adnan Nasir, **Amr Mohamed**, Mohsen Guizani, “Trading wireless Information and Power Transfer: Relay Selection Schemes to minimize the Outage Probability”, accepted in IEEE Global Conference on Signal and Information Processing (GlobalSIP), 2014.
 - [85] Azin Neishaboori, Ahmed Saeed, Khaled A Harras, and **Amr Mohamed**, “On target coverage in mobile visual sensor networks”, In Proceedings of the 12th ACM international symposium on Mobility management and wireless access, pages 39–46. ACM, 2014.
 - [86] Ahmed Saeed, Azin Neishaboori, **Amr Mohamed**, and Khaled A Harras, “Up and away: A visually-controlled easy-to-deploy wireless UAV cyber-physical testbed”, In Wireless and Mobile Computing, Networking and Communications (WiMob), 2014 IEEE 10th International Conference on, pages 578–584. IEEE, 2014.
 - [87] Azin Neishaboori, Ahmed Saeed, Khaled Harras, and **Amr Mohamed**, “Low complexity target coverage heuristics using mobile cameras”, In Mobile Ad Hoc and Sensor Systems (MASS), IEEE 11th International Conference on, pages 217–221. IEEE, 2014.
 - [88] Azin Neishaboori, Ahmed Saeed, Khaled Harras, and **Amr Mohamed**, “Heuristics to optimal target coverage using mobile cameras”, International Workshop on Robotic Sensor Networks, 2014.
 - [89] Imran Ahmed, M. Majid Butt, **Amr Mohamed**, “Energy Efficient Mobile Relay Selection for Two-Hop Wireless Networks”, in Proc. IEEE International Conference on Computer Systems and Applications, Doha, Qatar, November 2014.
 - [90] M. Majid Butt, Ahmed H. Anwar, **Amr Mohamed**, Tamer ElBatt, “Effective Capacity of Cognitive Radio Links: Accessing Primary Feedback Erroneously”, in Proc. 11th International Symposium on Wireless Communication Systems (ISWCS), Barcelona, Spain, August, 2014.
 - [91] A. Badawy, T. Khattab, T. ElFouly, **Amr Mohamed**, and D. Trincherro, “Secret key generation based on channel and distance measurements,” in Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT), 2014 6th International Congress on, pp. 136–142, Oct 2014.
 - [92] T. Salman, A. Badawy, T. Elfouly, T. Khattab, and **Amr Mohamed**, “Non-data-aided SNR estimation for qpsk modulation in awgn channel,” in Wireless and Mobile Computing, Networking and Communications (WiMob), 2014 IEEE 10th International Conference on, pp. 611–616, Oct 2014.
 - [93] M. Majid Butt, Eduard A. Jorswieck, **Amr Mohamed**, “Energy Efficient Scheduling: Statistical Guarantees on Successive Packet Loss”, in Proc. International Workshop on Physics-inspired paradigms in wireless communications and networks (Physcomnet) in conjunction with WIOPT, Hammamet, Tunisia, May, 2014.
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- [95] Ahmed Anwar, Ahmed El Shafie, **Amr Mohamed**, Tamer ElBatt, Mohsen Guizani, "Interference-Based Optimal Power-Efficient Access Scheme for Cognitive Radio Networks", accepted in IEEE International Conference on Computing, Networking and Communications (ICNC), February, 2015.
- [96] Mahmoud Ashour, Amr El-Sherif, Tamer ElBatt, **Amr Mohamed**, "Cooperative Access in Cognitive Radio Networks: Stable Throughput and Delay Tradeoffs", IEEE 12th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), pp. 263-270 May, 2014.
- [97] Mahmoud Ashour, Ahmed El Shafie, **Amr Mohamed**, Tamer Khattab, "Power-Optimal Feedback-Based Random Spectrum Access for an Energy Harvesting Cognitive User", accepted in IEEE International Conference on Computing, Networking and Communications (ICNC), February, 2015.
- [98] Ahmed El Shafie, Mahmoud Ashour, Tamer Khattab, **Amr Mohamed**, "On Spectrum Sharing Between Energy Harvesting Cognitive Radio Users and Primary Users", accepted in IEEE International Conference on Computing, Networking and Communications (ICNC), February, 2015.
- [99] Alaa Awad, M. Hamdy, **Amr Mohamed**, "Real-time Implementation and Evaluation of an Adaptive Energy-aware Data Compression for Wireless EEG Monitoring Systems", QShine, 2014.
- [100] Alaa Awad and **Amr Mohamed**, "Distributed Cross-Layer Optimization for Healthcare Monitoring Applications", IEEE WIOPT workshop on resource allocation in wireless networks, May 2014.
- [101] Alaa Awad, M. Hamdy, **Amr Mohamed**, "Transmission Delay Minimization for Energy Constrained Communication in Wireless Body Area Sensor Networks", NTMS, 2014.
- [102] M. Hamdy, **Amr Mohamed**, and Amr A. El-Sherif, "DDSAT: Distributed Dynamic Spectrum Access protocol Implementation Using GNURadio and USRP", SDR-WInnComm, 2014.
- [103] A. Elsherif, and **Amr Mohamed**, and Victor C. M. Leung, "Optimum Power and Rate Allocation in Video Sensor Networks", published in Globecom, Atlanta, Georgia, USA, December, 2013.
- [104] Abduljalil Mohamed, Khaled Bashir Shaban, **Amr Mohamed**, "Bayesian Network Based Heuristic for Energy Aware EEG Signal Classification", in proceedings of the Brain and Health Informatics conference, Maebashi, Gunma, Japan, October, 2013.
- [105] Alaa Awad, Ramy Hussein, **Amr Mohamed**, and Amr A. El-Sherif, "Energy-Aware Cross-Layer Optimization for EEG-based Wireless Monitoring Applications", Accepted in IEEE Conference on Local Computer Networks (LCN), October 2013.
- [106] Alaa Awad, **Amr Mohamed**, and Amr A. El-Sherif, "Energy Efficient Cross-Layer Design for Wireless Body Area Monitoring Networks in Healthcare Applications", Proceedings in IEEE International Symposium on Personal, Indoor and Mobile Radio Communications Conference (PIMRC), September 2013.
- [107] Hussein Saad, **Amr Mohamed**, Tamer A. ElBatt, "A Cooperative Q-learning Approach for Real-time Power Allocation in Femtocell Networks", accepted in VTC Fall, September, 2013.
- [108] Ramy Hussein, **Amr Mohamed**, and Al-Ghoniemy M., "Design and analysis of an adaptive compressive sensing architecture for epileptic seizure detection",

- International Conference on Energy Aware Computing systems & applications (ICEAC 2013).
- [109] Ramy Hussein, **Amr Mohamed**, and Al-Ghoniemy M., "Adaptive Compression and optimization for real-time energy-efficient wireless EEG monitoring system", Biomedical Engineering International Conference (BMEiCON2013).
 - [110] Ramy Hussein, Alaa Awad, **Amr Mohamed**, Amr El-Sherif, and Al-Ghoniemy M., "Adaptive Energy-Aware encoding for DWT-based wireless EEG Tele-monitoring System", Digital Signal Processing/ Signal Processing Education workshop (DSP/SPE 2013).
 - [111] Lamia Romdhani, **Amr Mohamed**, "An analytic study of a distributed EDCA-based QoS mapping for layered video delivery in WLAN", published in the First International Workshop on Performance Evaluation and Modeling in Wireless Networks PEMWN 2012.
 - [112] Abduljalil Mohamed, Khaled Bashir Shaban, and **Amr Mohamed**, "Effective Seizure Detection through the Fusion of Single-Feature Enhanced-k-NN Classifiers of EEG Signals", The 4th IEEE Biosignals and Biorobotics conference (ISSNIP), Rio de Janeiro, Brazil, February 18-20, 2013.
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 - [118] Lamia Romdhani, **Amr Mohamed**, Salman Raeisi, and Tarek M. Elfouly, "QUMESH: Wireless mesh network deployment and configuration in harsh environment", In 2012 IEEE Wireless Communications and Networking Conference (WCNC), April 2012.
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 - [122] Amr A. El-Sherif, **Amr Mohamed**, and Y. Charlie Hu, "Joint Routing and Resource Allocation for Delay Sensitive Traffic in Cognitive Mesh Networks", accepted in IEEE Globecom International Workshop on Recent Advances in Cognitive Communications and Networking, November, 2011.
 - [123] Irfan Ahmed, **Amr Mohamed**, Tarek ElFouly, and Y. Charlie Hu, "On the Fairness of Frequency Domain Resource Allocation in Wireless Mesh Networks- A Survey", in Proc. of IEEE GCC Conference, Dubai, 19-22, February 2011.
 - [124] Irfan Ahmed, Sara Orfali, Tamer Khattab, **Amr Mohamed**, "Characterization of the Indoor-Outdoor Radio Propagation Channel at 2.4 GHz", in Proc. of IEEE GCC Conference, Dubai, 605 - 608, February 2011.
 - [125] Irfan Ahmed and **Amr Mohamed**, "Outage Optimal Resource Allocation for Two-hop Multiuser Multirelay Cooperative Communication in OFDMA Upstream", accepted for publication in IEEE VTC Spring, Budapest, Hungary, 2011.
 - [126] Javad Hajipour, **Amr Mohamed**, and Victor C.M. Leung, "Channel Aware and Queue Aware Scheduling in LTE Uplink", in Proceedings of 7th International ICST Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (ICST Qshine), Houston, Texas, USA, November, 2010.
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 - [128] Irfan Ahmed, **A. Mohamed**, and I. Shakeel, "On the Group Proportional Fairness of Frequency Domain Resource Allocation in L-SC-FDMA based LTE uplink", Published in IEEE Globecom Workshop on Broadband Single Carrier and Frequency Domain Communications, 2010.
 - [129] **A. Mohamed**, and H. Alnuweiri, "Wireless Multicast Cross-Layer Framework for Rate Allocation: Protocol Design", International Conference and Exhibition on Next Generation Mobile Applications, Services, and Technologies - NGMAST, workshop on future multimedia networking (FMN), Cardif, Wales, GB, September 2008.
 - [130] **A. Mohamed**, T. Elfouly, S. Ibrahim, F. al-Kuwari, F. al-Qahtani, and E. al-Sulati, "WPSS: Wireless Patient Surveillance System using Zigbee standards", poster published in 1st International Conference on "M4D": Mobile communication technology For Development, December, 2008.
 - [131] Y. Pourmohammadi, K. Asrar Haghighi, **A. Mohamed**, H. M. Alnuweiri, "Streaming MPEG-4 over IP and Broadcast Networks: DMIF Based Architectures", Packet Video 2001 workshop.
 - [132] **A. Mohamed**, H. M. Alnuweiri, "[Mpeg4 Broadcast: A Client/Server Framework For Multi-Service Streaming Using Push Channels](#)", MMSP 2001 workshop.
 - [133] **A. Mohamed**, A. Kaheel, T. Khattab, and H. Alnuweiri. "Evaluation of Optical Packet Switch as Edge Device Using OPNET Modeler", Published in Opnetwork IEEE conference in Washington, US, September 2002.
 - [134] T. Khattab, **A. Mohamed**, A. Kaheel and H. Alnuweiri, "Optical Packet Switching with Packet Aggregation", Published in IEEE SOFTCOM 2002.

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- [139] **A. Mohamed** and H. Alnuweiri, "A distributed iterative algorithm for optimal rate allocation for homogeneous wireless multicast", In proceedings of IST mobile & wireless communications summit, Greece, June 2006.
- [140] **A. Mohamed** and H. Alnuweiri, "[Optimal resource allocation for homogeneous wireless multicast](#)", In Proceedings of IEEE Globecom, San Francisco, November 2006.
- [141] **A. Mohamed** and H. Alnuweiri, "Design of a cross-layer optimization framework for rate allocation in wireless multicast", In Proceedings IEEE International conference on Mobile Ad-hoc and Sensor Systems (MASS), Vancouver, Canada, October 2006.
- [142] **A. Mohamed** and H. Alnuweiri, "[Utility-based Optimal Rate Allocation for Heterogeneous Wireless Multicast](#)", In Proceedings of IEEE ICC, June 2007.
- [143] **A. Mohamed** and H. Alnuweiri, "Cross-layer Framework for Rate Allocation in Heterogeneous Wireless Multicast", In Proceedings of IIT, Dubai, UAE, October 2006.
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[\[UP\]](#)

REGIONAL REFEREED CONFERENCES

- [1] Reham Alhalees, Abrar Dalgamouni, Sara Orfali, Samah Salam, Tarek Elfouly, and **Amr Mohamed**, "Scalable indoor framework for patient and medical staff tracking using RFID-based system", Accepted in the third annual undergraduate research conference on applied computing, Dubai, May 2011.
- [2] Sara Qaffaf, Rouda Al-Kuwari, Ohood Al-Amoudi, Nada Aloraidi, Heba Dawoud and Muneera Al-Marri, Tarek Elfouly, and **Amr Mohamed**", "Assistive Technology for People with Hearing/Speaking Disabilities", Accepted in the third annual undergraduate research conference on applied computing, Dubai, May 2011 (*best poster*).
- [3] **Amr Mohamed**, Athmane Boularas , Ramzi Bendeddouche , Mohamed Al-Damarawy, "WIPMON: Wireless Sensor System for Industrial Process Monitoring", second annual undergraduate research conference on applied computing, Dubai, May 2010. (*Best paper award*) <http://www.zu.ac.ae/urc/program.html>.

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SUPERVISING

- 1. Ahmed Zaza, Master student, Qatar University.
- 2. Abdulhadi Al-Qahtani, Master student, Qatar University.
- 3. [Mhd Saria Allahham](#), Master student, Queen's University, Canada.
- 4. [Naram Mhaisen](#), PhD student, Delft University, Netherlands.
- 5. Lamiaa Basyoni, PhD student, Qatar University.
- 6. Aliya Tabassum, PhD student, Qatar University

7. [Emna Baccour](#), Postdoc, HBKU University.
8. [Zina Chkirbene](#), Postdoc, Qatar University.
9. Hany Hassan, Postdoc, Qatar University, joined iconec GmbH, Germany as Senior RF Engineer.
10. [Heena Rathore](#), Postdoc, Qatar University, joined as Assistant Professor at the University of Texas, San Antonio.
11. [Majid Butt](#), Postdoc, Qatar University, joined Nokia Bell labs as a research scientist.
12. Hafiz Yasar, Postdoc, Qatar University, entrepreneur in London, director, TelXperts.
13. [Amr Elsherif](#), Postdoc, Qatar University, currently assistant professor in Nile University, Egypt.
14. [Ahmed Saeed](#), Research Assistant, Qatar University, currently postdoc at MIT, USA.
15. Lamia Romdhani, Postdoc, Qatar University
16. Abduljalil Mohamed, Postdoc, Qatar University
17. [Irfan Ahmed](#), Postdoc, Qatar University, joined Higher Colleges of Technology, UAE.
18. [Mohamed Ali Garadi](#), Postdoc, Qatar University, Emory University, Atlanta, USA as assistant prof.
19. Mohamed Alsad, RA, Qatar University
20. Mounira Tlili, RA, Qatar University, joined Uber as a software engineer, California, USA.
21. Belal Eldiwany, RA, Qatar University
22. Yahia Shabara, RA, Qatar University, joining Ohio state university for fall 2016 as PhD student.
23. Ahmed Salama, RA, Qatar University, joining university of Arizona for fall 2016 as a PhD student.
24. [Islam Samy](#), RA, Qatar University, joining university of Arizona for fall 2016 as a PhD student.
25. Mouhyemen Khan, RA, Qatar University. Joined as a PhD Student at Georgia-Tech since Fall 2016.
26. Imran Ahmed, RA, Qatar University
27. Ahmed Hossam, RA, Qatar University. Joined university of central Florida as a PhD student since Fall 2014.
28. [Mahmoud Ashour](#), RA, Qatar University, joined Pennsylvania state university as a PhD student since Fall 2015.
29. Medhat Hamdy, RA, Qatar University, Joined Carleton University, Canada as a PhD student in fall 2015.
30. [Ramy Hussein](#), RA, Qatar University, joined as a postdoc at Stanford University, USA.
31. Nada Ashqar, RA, Qatar University
32. [Alaa Awad](#), postdoc, Qatar University.
33. Amal Saad, PhD student, Qatar University
34. [Javad Hajipour](#), PhD, University of British Columbia, Canada.
35. [Abeer AlMarri](#), PhD, students, Qatar University.
36. Aisha Arar, M.Sc. student, Qatar University.
37. [Hussein Saad](#), M.Sc. Nile University, Egypt, joined University of Texas at Dallas as a PhD student since fall 2014.
38. [Amith Khandakar](#), M.Sc. student, Qatar University
39. Fatima Hamza, M.Sc. student, Qatar University

COLLABORATORS (PARTIAL LIST)

1. [Prof. Rabab Ward](#), president of IEEE signal processing society, University of British Columbia.
2. [Prof. Victor Leung](#), University of British Columbia.
3. [Prof. Jane Wang](#), University of British Columbia.
4. [Prof. Panos Nasiopoulos](#), University of British Columbia.
5. [Prof. Mohsen Guizani](#), University of Idaho.
6. [Prof. Charlie Hu](#), Purdue University.
7. [Prof. Hussein Alnuweiri](#), Texas A&M, Qatar.
8. [Prof. Hesham El Gamal](#), Ohio state university.
9. [Prof. Eduard Jorswieck](#), Dresden university technology.
10. [Dr. Sameh Sorour](#), Queen's university, Canada.
11. [Dr. Ahmed Hussein Refaey](#), Manhattan College.
12. [Dr. Carla Chiasserini](#), Polytechnic de Torino.
13. [Dr. Tamer Elbatt](#), Nile University, Cairo University.
14. [Dr. Ioannis Krikidis](#), University of Cyprus.

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RESEARCH SUPPORT

Dr. Mohamed has managed to bring a total research fund of over 10 million dollars since he was hired at Qatar University. This includes:

QNRF and external grants (2-3-year projects)

1. NPRP12S-0119-190006 **"A Telemedicine System for Minimally Invasive Surgeries - Application Towards Surgical Treatment of Cancer and Renal Diseases"** Joint HMC, QU, and University of Houston, NPRP 12th cycle, \$600000, 2019, PI (**Active**).
2. NPRP12S-0305-190231 **"Ultra Reliable Low Latency Smart Health System Design over 5G Networks for Patients with Neurological Disorders"**, Joint QU, AUB, and UBC, NPRP 12th cycle, \$400000, 2019, Lead PI (**Active**).
3. NPRP8-408-2-172 **"Light-Weight and Effective Security Schemes for Wireless Medical Devices"**, Joint QU with Temple University and University of Idaho, USA, National Priorities Research Program (NPRP) 8th cycle, \$750000, 2016, Lead PI. (**completed**)
4. NPRP 7-684-1-127 **"QHCN: Towards Reliable and Efficient mHealth System with Multimodal Processing and Communications for Effective Remote Patient Diagnosis"**, Joint QU with University of British Columbia, and Carnegie Mellon University-Qatar, National Priorities Research Program (NPRP) 7th cycle, \$900000, 2015, Lead PI. (**completed**)
5. GSRA2-1-0609-14026 **"Reliable and Energy-Efficient Cross-Layer Design for mHealth System for Effective Patient Monitoring"**, QNRF GSRA 2nd cycle, Qatar University, \$200,000, Supervisor-Mentor. (**completed**)
6. NPRP 5-782-2-322 **"GAD: Green And Dense - designing the new wireless access network"** QU with Polytechnic de Torino, Italy, and Nile University, Egypt (NPRP) 5th cycle, \$1,000,000, 2012, CO-LeadPI (**completed**).
7. NPRP 5-559-2-227 **"Information Theory Enabled Secure Wireless Networking: Scaling Laws, Network Control, and Implementation"** joint QU with Ohio State University, and University of Arkansas at Little Rock, NPRP 5th cycle, USA, \$1,045,663, CO-PI (**Successfully completed**). (**completed**)

8. NPRP 4-463-2-172 **"Wireless Sensor Networks for Video Surveillance"**, Joint QU with University of British Columbia, Vancouver, Canada, National Priorities Research Program (NPRP) 4th cycle, \$1,050,000, 2011, Lead PI **(completed)**.
9. NPRP 4-1034-2-385 **"Optimal Sensing, Resource Allocation, and Protocol Design for Real-time Communications in Dynamic Spectrum Access Networks"** Joint QU with University of Arizona, Tucson, Arizona, USA, and Nile University, Cairo, Egypt, National Priorities Research Program (NPRP) 4th cycle, \$1,045,000, 2011, CO-Lead PI **(completed)**.
10. NPRP 09 -310-1-058 **"Innovative framework for scalable signal processing and power-efficient communication in healthcare wireless body area sensor networks"**, Joint QU with University of British Columbia, Vancouver, Canada, National Priorities Research Program (NPRP) 3rd cycle, \$1041000, 2010, Lead PI **(completed)**.
11. NPRP 08-374-2-144 **"Experimental Testbed-based Studies of Radio Access, Routing, and Network Resource Allocation"**, Joint QU with Purdue University, West Lafayette, Indiana, USA, National Priorities Research Program (NPRP) 2nd cycle, \$1050000, 2009 Co-Lead PI **(completed)**.

Qatar University internal grants (2-year projects)

1. QUHI-CENG-20/21-1 **"Q-Hummingbirds: Distributed cooperative multi-UAV platform for agile coverage and surveillance"**, High impact grant, Qatar University, \$160,000, 2019-2021 (2 years), PI **(Active)**.
2. **"Designing Secure and Trustworthy Internet of Things (IoT) Systems"**, IRCC grant, Qatar University, \$160000, 2019-2021 (2 years), PI **(Active)**
3. QUHI-CENG-19/20-1 **"Edge computing for scalable and secure medical data exchange using Blockchain"**, High impact grant, Qatar University, \$160,000, 2018-2020 (2 years), Lead PI **(Active)**
4. GCC-2017-009 **"Environmentally-Friendly Smart Home for Elderly and Physically Impaired People"**, GCC-Collaboration, Qatar University, and King Saud University, \$80,000, Lead PI, 2017. **(completed)**
5. **"A Distributed Agent-Based Mobile Ad-hoc Networking Architecture for QoS Support"**, Qatar University Internal grants, QR150,000, PI. **(completed)**

Industry grants

1. MRC-01-17-091 **"Investigation Of The Utility Of Employing Techniques Of Deep Learning Algorithmic Analysis To Raw EEG, Vital Signs And Observational Data From Patients Receiving Intravenous Antibiotic Medication, With Respect To Using The Output Data To Better Predict The Risk Of Seizure Events"** In collaboration with HMC Qatar, PI **(Active)**.
2. **"Crowd management for world cup 2022"**, Collaboration with Supreme Council (SC), Consultant and PI **(Active)**.
3. **"Video Analytics for world cup 2022"**, Collaboration with Supreme Council (SC), Consultant and PI **(Active)**.
4. **"Cross Layer Design, seamless networking for Heterogeneous wireless access, and streaming over LTE networks"**, Joint QU with University of British Columbia, Vancouver, Canada, Industrial grant QTel, \$300,000, CO-PI **(completed)**.

Undergraduate research projects (1-year projects)

1. **"Efficient mHealth system architecture for remote delay-sensitive monitoring applications"**, Undergraduate Research Experience Program (UREP) 17th cycle,

- \$40000, 2015, primary mentor (won first place in the UREP competition) **(completed)**.
- 2. **“Scalable indoor patient and staff monitoring and tracking using wireless sensor networks”**, Undergraduate Research Experience Program (UREP) 7th cycle, \$30000, 2008, primary mentor **(completed)**
- 3. **“WIPMON: Wireless sensor network for Industrial process MONitoring”**, Undergraduate Research Experience Program (UREP) 5th cycle, \$30000, 2008, primary mentor **(completed)**.
- 4. **“An Intelligent Traffic Light Control System for Ambulance Use”**, Undergraduate Research Experience Program (UREP) 5th cycle, \$40000, 2008, CO-PI (won third place in the UREP competition) co-mentor **(completed)**.
- 5. UREP 03-003-2-083 **“WPSS: Wireless Patient Surveillance System”**, Undergraduate Research Experience Program (UREP) 3rd cycle, \$38000, 2007, co-mentor **(completed)**.

Other proposals (before being hired at Qatar University)

- As a research assistant, Dr. Mohamed has participated in preparing the following grant applications as part of his work at UBC, Canada:
 - **“Resource Allocation and Management in Wireless Multicast Networks”**, for Natural Sciences and Engineering Research Council of Canada (NSERC) and Telus Inc 2005.
 - **“Optimal Price-based Classification and Admission Control Policies for Multi-Class Link Models”**, for Telus Inc., Canada 2004.
 - **“UBC Optical Lambda Router Architecture”**, for NSERC, 2002.

Memberships in academic committees, advisory committees and journal editorial boards

- **Editorial boards**
 - [IEEE Network magazine, special issue on “Deep Learning Models and Techniques for Security and Privacy Preservation in 5G Heterogeneous Networks \(5G HetNets\)”](#)
 - [International Journal of Sensor Networks](#) (inderscience)
 - [Journal of internet technology](#)
- **Qatar University Wireless Innovations center [QMIC at QSTP](#), Qatar 2009**
- Member of [Standards Council of Canada](#) work group (ISO/IEC/JTC1/SC29) for [MPEG](#) advancements
- **Technical program committee:**
 - IEEE Globecom since 2010, US.*
 - International conference on communications, ICC 2010-2016*
 - IEEE WCNC since 2010.*
 - IEEE PIMRC since 2012.*
 - IEEE VTC since 2012.*
 - Innovation in information technology (IIT) in Dubai, 2007*
 - The 5th IEEE-GCC Conference, Kuwait, 2009, 2015*
 - IEEE PacRim 2009-2012.*
 - The 6th IEEE/ACS International Conference on Computer Systems and Applications, AICCSA 2008, Qatar.*
- **Conference track/workshop/special session co-chair**
 - [IEEE World Forum of Internet of Things](#), special session “Smart Health and Internet of Medical Things”

- International conference on telecommunication, Doha 2010 - “Wireless Ad Hoc and sensor communications” track.
- [10th International Conference on Cognitive Radio Oriented Wireless Networks \(CROWNCOM2015\)](#)- Track 2: Networking Protocols for CR
- [IEEE Wireless Communications and Networking Conference \(WCNC2016\)](#) workshops chair.
- [IEEE GLOBECOM 2016](#) - Ad Hoc and Sensor Networks track.
- [Wireless Local Networks \(WLN 2011\)](#)
- **Technical reviewer**
 - IEEE transactions of information forensics and security*
 - IEEE Transactions on computers*
 - IEEE Transactions on mobile computing*
 - IEEE/ACM Transactions on Networking*
 - IEEE Transactions on Wireless Communications*
 - IEEE Transactions on Cognitive Communications and Networking*
 - IEEE Transactions on Information Technology in Biomedicine*
 - IEEE Systems Journal*
 - IEEE Access: Special Section: Internet of Things (IoT) in 5G Wireless Communications*
 - Elsevier, the International Journal of Computer and Telecommunications Networking*
 - Elsevier, the International Journal of Ad Hoc Networks*
 - Elsevier, the International Journal of Computers & Electrical Engineering*
 - EURASIP, Journal on Wireless Communications and Networking*
- IEEE senior member since 2014
- IEEE member since 2000
- IEEE communication society member since 2002
- IEEE Signal processing society member since 2014

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IMPORTANT PRESENTATIONS

1. [“Pervasive AI for IoT Applications”](#) Tutorial as part of the IEEE IWCMC conference, June 2021.
2. **“Managing and submitting NPRP projects”**, Seminar for CSE faculty members, November, 2010.
3. **“QNRFP NPRP submission process: tips and tricks”**, Seminar for CSE faculty members, October, 2009.
4. **“Experimental Testbed-based Studies of Radio Access, Routing, and Network Resource Allocation”**, Research presentation, ICT-Day, CENG research week, April, 2011.
5. **“Outage Optimal Resource Allocation for Two-hop Multiuser Multirelay Cooperative Communication in OFDMA Upstream”**, presented at IEEE VTC Spring conference, Budapest, Hungary, May, 2011.
6. **“Wireless technologies: Middle Eastern Perspective”**, presented at 26th Wireless World Research Forum (WWRF26), April, 2011.

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TEACHING

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TEACHING HIGHLIGHTS

- Dr. Mohamed has more than 15 years of experience in teaching in different academic institutions as highlighted in his CV.
- Dr. Mohamed was one of the pioneers to adopt and apply the state-of-the-art technologies and teaching pedagogies such as flipped classroom, and teaching through digital media for most of the courses he taught. He has many of his [courses widely available](#), and highly viewed by students and professionals from around the globe ([see latest audience report](#)).
- Dr. Mohamed has experience in teaching variety of courses, including Network security, Communication, and computer networks courses, in addition to programming and object oriented basic courses.

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COURSES

1. [Network security \(Masters and PhD\)](#)
2. [Wireless Communication \(Masters, and PhD\)](#)
3. [Selected topics in wireless networking systems \(Masters, and PhD\)](#)
4. [Advanced computer networks \(Masters, and PhD\)](#)
5. Multimedia networks
6. Wireless sensor networks
7. Wireless ad hoc networks
8. Wireless mobile communications
9. [Data communication and computer networks I \(Cisco CCNA\)](#)
10. [Data communication and computer networks II](#)
11. Advanced programming
12. Introduction to programming
13. Object oriented C++

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STUDENT PROJECTS

1. A platform for detecting and tracking reckless driver's behavior, 2016 (***Best Senior project 2011***).
2. Efficient mHealth system architecture for remote delay-sensitive monitoring applications, 2015.
3. Assistive Technology for People with Hearing Disabilities, 2011 (***Best Senior project 2011***).
4. Scalable indoor patient and staff monitoring and tracking using wireless sensor networks, 2010.
5. WIPMON: Wireless sensor network for Industrial process MONitoring, 2009.
6. An Intelligent Traffic Light Control System for Ambulance Use, 2009
7. Wireless Patient Surveillance System using Zigbee standards, 2008

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TECHNICAL SKILLS

Programming Languages/Tools	Python	2 yrs	Operating	MS Windows	8 yrs
	Pytorch and openAI	6 mths		Sun Solaris	2 yrs
	Object-Oriented Analysis and Design	10 yrs		Linux	2 yrs
	C/C++	10 yrs		QNX	3 mths
	Java	7 yrs		Symbian OS	1 yr
	System Analysis	3 yrs		AIX	2 yrs
	Relational Database (SQL, DB2)	3 yrs		VxWorks	6 mths
	IBM DB2/2 & SQL Programming	3 yrs	Simulation	OPNET Modeler & Planner	5 yrs
	MQSeries	4 yrs		MATLAB / SIMULINK	3 yrs
	Perl, XML, XSLT	1 yr		NS2	3 yrs
	IBM VisualAge C++	24 mths		PLANITU	4 mths
	Assembly	1 yr		OptiSystem	3 mths
	J2ME	2 yrs		ModelSim/Leonardo Spectrum	6 mths
	Symbian C++	1 yr	H/W	PC Cards and Motherboards	10 mths
	Visual Basic	2 mths		Printers Hardware	3 mths
Communications/Networki	TCP/IP	8 yrs		DEC 6000 Boards	2 mths
	Ethernet	2 yrs		VHDL on Xilinx Boards	3 mths
	IEEE 802.11e/b/a/g	2 yrs			
	H.323, H.263, H.264 and MPEG4, SIP, SAP, RTP videoconferencing protocols	2 yrs			
	Optical Switches	24 mths			
	Optical Burst Switching	2 yrs			
	HIPERLAN	4 mths			
	SONET/SDH	6 mths			