

Taimour Aldalgamouni
PhD in Electrical Engineering
Tabuk-KSA

Tel: +962797100932

tfaldalgamouni@fbsu.edu.sa

WORK HISTORY

Chairman and Associate professor ***September 2018- Present***
Electrical Engineering Department, Fahad Bin Sultan University, Tabuk, KSA.

Visiting professor ***September 2016- August 2017***
Systems and Computer Engineering Department, Carleton University, Ottawa, Canada.
Conducting research in the 5G wireless communication systems.

Associate professor ***June 2015 - present***
Electrical Engineering Department, Jordan University of Science and Technology, Irbid, Jordan.

Assistant professor ***February 2010-June 2015***
Electrical Engineering Department, Jordan University of Science and Technology, Irbid, Jordan.

Visiting Assistant Professor ***February, 2014- June, 2014***
Electrical and Computer Engineering Department, Khalifa University of Science, technology & Research (KUSTAR).

Assistant dean ***September, 2011-September 2013***
College of Engineering, Jordan University of Science and Technology, Irbid, Jordan
Responsibilities:

- Personnel matters.
- Course equivalency.
- Students' absence excuses.
- Students' discipline.

Visiting Scientist ***June 13, 2011-September 9, 2011***
Electrical Engineering Department, Concordia University, Montreal, Canada.

Activities:

Conducting research in the area of resource allocation for fourth generation wireless systems.

Lecturer**September, 2009-January, 2010**

Electrical Engineering Department-Jordan University of Science and Technology, Irbid, Jordan.

Research Assistant**September, 2006-September 2009**

Electrical and Computer Engineering Department, Concordia University, Montreal, Canada.

Activities:

Conducting research in the area of resource allocation for fourth generation wireless systems.

Courses Taught:

- Analog Communication Systems.
- Digital Communication Systems.
- Linear Algebra.
- Signals and Systems.
- Wireless communication systems.
- Communication Systems Lab.
- Digital Communication Systems Lab.
- Electronic Circuits Lab.
- Electrical Circuits.
- Principles of Electrical Engineering.
- Electrical Circuits Lab.

Research Interests:

- Wireless communication systems.
- Resource allocation for cognitive radio networks.
- Cross-layer designs for wireless networks.
- Multiple input multiple output communication systems for multi user environments.

M.Sc. Students Supervised:

- Asma Alqudah, "Multiple Antenna Aided Orthogonal Frequency Division Multiplexing Employing Differential Evolution Algorithm for Minimum Bit Error Rate Multiuser Detection", May 2010.
- Monir Abughalwa, "Comparison of Analytical and Simulated BER Performance of Uplink CDMA-SFBC Systems", May 2011.
- Salsabeel Theiabat, "Performance Evaluation for Code Division Multiple Access With Space-Frequency Block Code Downlink Transmission Over Multipath Weibull Fading Channel Model", November 2011.
- Ahmad Alhubaishi, "Selection Diversity Techniques and their performance over the $\alpha - \mu$ fading channels", October 2012.

- Maymonah Hayajneh, "Minimum Bit Error Rate Multiuser Detection Of Space Division Multiple Access-Orthogonal Frequency Division Multiplexing System Using Biogeography Based Optimization Algorithm". 2013.
- Shafea M Al-yousofi, "Performance Analysis of Multihop Wireless communication Systems Over Kappa-Mu and Eta-Mu Fading Channels using Generalized Gaussian Finite Mixture technique", 2014.
- Sharaf Mater, "Capacity analysis of Alpha-Eta-Mu Fading Channels under different adaptive transmission protocols", 2016.

Publications:

1. T. Aldalgamouni and A. ElHakeem, "On the performance of down link SFBC-MIMO-CDMA systems," in *Canadian Conference on Electrical and Computer Engineering 2008. CCECE 2008.*, 2008, pp. 000129-000134.
2. T. Aldalgamouni and A. Elhakeem, "SFBC-MIMO-CDMA up-link performance under combined code and channel impairments," in *Proceedings of the Eighth IASTED International Conference on Wireless and Optical Communications*, Quebec City, Canada, 2008, pp. 112-120.
3. T. Aldalgamouni and A. ElHakeem, "Optimized resource allocation for the uplink of SFBC-CDMA systems," in *33rd IEEE Conference on Local Computer Networks 2008. LCN 2008.*, 2008, pp. 478-483.
4. T. Aldalgamouni and A. Elhakeem, "CDMA-SFBC Downlink Performance," *International Journal of Wireless Information Networks*, vol. 16, pp. 68-80, 2009.
5. T. Aldalgamouni and A. ElHakeem, "A Joint cross layer routing and resource allocation algorithm for multi-radio wireless mesh networks," in *IEEE International Conference on Electro/Information Technology 2009. eit '09.*, 2009, pp. 349-354.
6. J. Ababneh, T. Aldalgamouni, and A. Alqudah, "Minimum bit error rate multiuser detection of SDMA-OFDM system using differential evolutionary algorithm," in *2010 IEEE 6th International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob)*, 2010, pp. 273-279.
7. T. Aldalgamouni, A. Magableh, and S. Al-Theiabat, "Performance evaluation for code division multiple access with space-frequency block code downlink transmission over multipath Weibull fading channel model," in *2011 IEEE GLOBECOM Workshops (GC Wkshps)*, 2011, pp. 575-579.
8. T. Aldalgamouni, A. Magableh, and S. Al-Theiabat, "Performance of Downlink CDMA-SFBC Over Weibull Fading Channels," *Journal of Communications* vol. 7, pp. 321-328, 2012.
9. T. Aldalgamouni, J. Ababneh, and M. Hayajneh, "Minimum Bit Error Rate Multiuser Detection of SDMA-OFDM Systems Using Biogeography Based Optimization Algorithm," in *Mosharaka 1st International Conference on Telecommunication Systems and Networks* Barcelona, Spain, 2013, pp. 12-15.
10. O. S. Badarneh, T. Aldalgamouni, and M. Aloqlah, "Outage probability analysis of multi-hop relayed wireless networks over η - μ fading channels," *AEU* -

- International Journal of Electronics and Communications*, vol. 67, pp. 833-838, 2013.
11. A. M. Magableh, T. Aldalgamouni, and Al-Hubaishi, "Performance of Selected Diversity Techniques Over The α - μ Fading Channels," *WSEAS transactions on communications*, vol. 12, pp. 41-51, 2013.
 12. A. M. Magableh, T. Aldalgamouni, and N. M. Jafreh, "Performance of dual-hop wireless communication systems over the α - μ fading channels," *International Journal of Electronics*, vol. 101, pp. 808-819, 2013.
 13. A. M. Magableh, T. Aldalgamouni, and N. M. Jafreh, "Capacity analysis of dual-hop wireless communication systems over α - μ fading channels," *Computers & Electrical Engineering*, vol. 40, pp. 399-406, 2014.
 14. H. Salameh, Y. Jararweh, T. Aldalgamouni, and A. Khreishah, "Traffic-driven exclusive resource sharing algorithm for mitigating self-coexistence problem in WRAN systems," in *2014 IEEE Wireless Communications and Networking Conference (WCNC)*, 2014, pp. 1933-1937.
 15. Haythem Bany Salameh, Yaser Jararweh, Abdallah Khreishah, Taimour Aldalgamouni, "Cooperative weighted-fair control strategy for spectrum self-coexistence in multi-cell WRAN systems," *Computers & Electrical Engineering*, Volume 46, August 2015, Pages 65-77.
 16. Aldalgamouni, T.; Magableh, A.M.; Jafreh, N.M., "Exact expression for general average BER over Nakagami-m fading channels," in *2015 International Conference on Information and Communication Technology Research (ICTRC)*, vol., no., pp.179-181, 17-19 May 2015.
 17. Aldalgamouni, Taimour; Magableh, Amer M.; Al-yousofi, Shafea M, "Outage capacity of multi-hop wireless communication systems over κ - μ fading channels using generalized Gaussian-finite-mixture technique," in *2015 IEEE International Conference on Electro/Information Technology (EIT)*, pp.050-053, 21-23 May 2015.
 18. Badarneh, Osamah S; Aldalgamouni, Taimour; Almehmadi, Fares S;" A unified framework for performance evaluation over generalized fading channels", *Telecommunication Systems*, volume 64, issue 4, pp 669-678, April 2017.
 19. Aldalgamouni, Taimour; Magableh, Amer M; Badarneh, Osamah S;"Outage probability analysis of multi-hop relayed wireless networks over α - μ fading channels", *Telecommunication Systems*, doi:10.1007/s11235-017-0295-2, March 2017.
 20. Aldalgamouni, Taimour; Magableh, Amer; Mater, Sharaf; Badarneh, Osamah S.: "Capacity analysis of alpha-eta-mu channels over different adaptive transmission protocols", *IET Communications*, 2017, DOI: 10.1049/iet-com.2016.1189.
 21. Hailat, Tha'er; Bany Salameh, Haythem; Aldalgamouni, Taimour: "Performance Study of Multi-hop Communication Systems With

- Decode-and-Forward Relays over alpha-mu Fading Channels”, IET Communications, 2017, DOI: 10.1049/iet-com.2016.1220.
22. Badarneh, Osamah S; Almeahmadi, Fares S; Aldalgamouni, Taimour;" "On the application of the sum of generalized Gaussian random variables: maximal ratio combining", *Telecommunication Systems*, doi: 10.1007/s11235-017-0346-8, June 2017.
 23. Osamah S. Badarneh, Fares S. Almeahmadi, Taimour Aldalgamouni, “Performance evaluation of cognitive underlay multi-hop networks with interference constraint in Rayleigh fading channels perturbed by non-Gaussian noise”, *Physical Communication*, 2017, ISSN 1874-4907, <http://dx.doi.org/10.1016/j.phycom.2017.06.009>.
 24. T. Aldalgamouni, M. C. Ilter and H. Yanikomeroglu, "Joint Power Allocation and Constellation Design for Cognitive Radio Systems," in *IEEE Transactions on Vehicular Technology*, vol. PP, no. 99, pp. 1-1. doi: 10.1109/TVT.2018.2790363.

Professional Activities

- Reviewer for several journals:
 - IEEE transactions on vehicular technology.
 - IEEE transactions on communications.
 - IEEE communication letters.
 - International journal of electronics.
 - Wireless Communications and Mobile Computing, Wiley.
- Technical program committee:
 - The 1st international workshop on reliability of e-health information systems, 2014.
 - The 1st International Conference on Telecommunication Systems and Networks (MIC-Telecom 2013).
 - IEEE 6th international conference on Wireless and mobile computing, networking and communications, 2010.
 - The International Conference on Information and Communication Technology Research (ICTRC2015).
 - The 8th Jordanian International Electrical and Electronics Engineering Conference (JIEEEEC 2013).

Test Engineer II

Nov. 2005- Aug. 18, 2006

Sprint, Overland Park, Kansas, USA

Responsibilities:

- Executing call through test procedures to make sure that Sprint’s cable partners voice over IP customers can make and receive all kinds of calls.
- Troubleshooting and isolating root causes for call failures.

- Engaging the right fix agency from the Sprint side if it is an in-house failure.
- Working with other Local Exchange Carriers (LECs) to troubleshoot call failures through their networks.

NTAC Engineer II

Feb. 2001- Nov. 2005

Sprint, Overland Park, Kansas, USA

Working as a tier three technical support engineer maintaining Sprint's nationwide network.

Supported Platforms:

- Ciena Sentry and Corestream DWDM optical transport systems.
- Alcatel 1640 DWDM optical transport system.
- Tellabs TITAN 6500 digital cross connect system.
- Tellabs TITAN 5500 digital cross connect system.
- NEC ITS-2400V SONET ADM.
- Cisco 15454 Optical MAN Switch.
- Alcatel DSC DEXCS1L digital cross connect system.
- Cisco 7206, Cisco 6400 and Cisco 12000 routers.
- Cisco 6509 catalyst switch.
- Lucent Stinger DSLAM.

Responsibilities:

- Performing proactive maintenance and prevent service outages before they happen.
- Vendor management: Defining technology problems in both software and hardware and working with the vendor to resolve those issues and communicate the fix to other support departments within Sprint.
- Testing new hardware or software and certifying that it falls within Sprint standards before deploying it in the live network.
- Helping and training other network support groups on configuring, maintaining and troubleshooting the different network elements.

Control Engineer

June 1999-Feb. 2001

Sverdrup Technology, Auburn Hills, MI, USA

Responsibilities:

- Worked as a control engineer responsible for the design, startup and troubleshooting of control systems using GE PLCs.
- Maintained and troubleshot data acquisition systems.
- Served as the electrical engineer responsible for the startup team of the Soak Rooms control system at Ford Derivability Test Facility in Allen

Park, MI. This included wiring verification, instrument functionality and using GE PLC's software to simulate inputs and outputs to the system.

Teaching Assistant

1997-1998

Western Michigan University, Kalamazoo, MI, USA.

Lectured, trained and administered Electronics Labs.

Lab Engineer

1996

Department of Communications, Hijjawi College for Engineering Technology, Yarmouk University. Irbid, Jordan.

Participated in numerous activities including: Lecturing, training and administering various Labs, Served as an Active Member in the Committee during the Lab Expansion Project.

EDUCATION

- **PhD** in Electrical Engineering, Concordia University, Montreal, Canada, 2009.
- **Master of Science** in Electrical Engineering, Western Michigan University, Kalamazoo, MI, USA, 1998.
- **Bachelor of Science** in Electrical Engineering, Jordan University of Science and Technology, Irbid, Jordan, 1995.