

CURRICULUM VITAE

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1. Personal Data

Date of Birth: 16/7/1975
Nationality: Jordanian

2. Education

- Ph.D. (Electrical Engineering-Wireless Communications) 2004,
University of Cincinnati,
Cincinnati, Ohio,
USA
- M.Sc. (Radio Communications and High Frequency Engineering) 1998,
University of Leeds,
Leeds,
United Kingdom
- B.Sc. (Electrical Engineering) 1998,
University of Jordan,
Amman,
Jordan



3. Ph.D. Dissertation

Algorithms and Parameter Estimation for Radiolocation in NLOS Environments,
University of Cincinnati, Cincinnati, Ohio, USA.

4. Employment

Academic Positions

- Professor, Department of Electrical Engineering, Al-Zaytoonah University of Jordan, Amman, Jordan
May 4, 2022 – now
- Associate Professor, Department of Electrical Engineering, Al-Zaytoonah University of Jordan, Amman, Jordan
November 27, 2017 – May 4, 2022
- Assistant Professor, Department of Electrical Engineering, Al-Zaytoonah University of Jordan, Amman, Jordan
February 16, 2014 – November 27, 2017
- Assistant Professor, Department of Electrical Engineering, University of Hail, Hail, Saudi Arabia
September 1, 2011 – August 31, 2012
- Lecturer / Assistant Professor, Department of Electrical Engineering, The Hashemite University, Zarqa, Jordan
November 8, 2004 – October 5, 2010

5. Research Interests

- Channel Estimation and Tracking.
- Positioning.
- Adaptive Signal Processing Applications to Communication Systems.
- Blind Signal Detection.
- Space-Time Signal Processing.
- Smart Antennas.
- Angle-of-Arrival Estimation.
- Multiple Access (OFDMA, SC-OFDMA, CDMA) Systems.
- Relay Self Interference Mitigation.
- MIMO systems.

6. Membership in Scientific Societies and Associations

Jordan Engineering Association



7. Honors and Awards

- Best paper award, The 10th Jordan International Electrical and Electronics Engineering Conference (JIEEEEC2017), Amman, Jordan, May 2017.
- Best paper award, The Fourth International Conference on Future Generation Communication Technologies (FGCT 2015), Luton, UK, July 2015.
- British Arab Chamber Award (1998).
- The M.Sc. degree was awarded with distinction, School of EE Engineering, University of Leeds, Leeds, United Kingdom (1997-1998).

8. Fellowships and Scholarships

- University Graduate Scholarship, ECECS Department, University of Cincinnati, Cincinnati, Ohio, USA (1999-2004).
- Research Assistantship, ECECS Department, University of Cincinnati, Cincinnati, Ohio, USA (2001-2002).
- Teaching Assistantship, ECECS Department, University of Cincinnati, Cincinnati, Ohio, USA (2000).

9. Teaching Experience

- Wireless Communications.
- Communication Systems.
- Microwave Circuits.
- Analogue Communications.
- Digital Communications
- Radio Propagation and Antennas.
- Probability and Random Processes.
- Electromagnetics.
- Digital Signal Processing.
- Power Analysis I.
- Power Analysis II.
- Control Theory.
- Physics.
- Engineering Mathematics.
- Digital Logic.
- Electrical Circuits I.
- Electrical Circuits II.
- Numerical Methods.
- MATLAB.
- Engineering Economy.
- Technical Writing.
- Introduction to Electrical and Electronics Circuits.
- Communications Lab.
- Communications Electronics Lab.
- Electrical Circuits I & II Lab.



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Curriculum Vitae Form - Procedures of Appointment and Promotion Committee

- Electronics I Lab.
- Digital Logic Lab.

10. Grants

- 1) Project name: Energy-Aware Wireless Motion Detection System via Passive Infrared Sensors.
Year of grant: 2018.
Grantor: Al-Zaytoonah University of Jordan under Grant 13/28/2017-2018.
Grant amount: 19,065 JD.
- 2) Project name: Heterogeneous Sensor Signal Fusion for Intrusion Detection and Tracking under Power Constraints.
Year of grant: 2021.
Grantor: Al-Zaytoonah University of Jordan under Grant 12/11/2020-2021.
Grant amount: 9,300 JD.

11. Patents

- 1) Al-Jazzar, Saleh, "*Method for correcting NLOS error in wireless positioning system*," US 7,065,368 B2, issued on June 20, 2006.
- 2) Al-Jazzar, Saleh, "*Method for calibrating NLOS error for positioning system*", Korea Patent 1020010082955, issued on June 27, 2003.

12. Membership of Committees

- ABET coordinator for the EE department at Al-Zaytoonah University of Jordan.
- Curricula committee coordinator for the EE department at Al-Zaytoonah University of Jordan.
- Quality Assurance committee coordinator for the EE department at Al-Zaytoonah University of Jordan.
- Scientific research committee coordinator for the EE department at Al-Zaytoonah University of Jordan.

13. Professional and Scientific Meetings

Scientific Meetings Organized

- The 7th International Conference on Information Technology, ICIT 2015, Al-Zaytoonah University of Jordan, Amman, Jordan, May12-15, 2015.
- 8th International Conference on Engineering, Project, and Product Management (EPPM 2017), Al-Zaytoonah University, Amman, Jordan, 2017.



Participation in Scientific meetings

- The 10th Jordan International Electrical and Electronics Engineering Conference (JIEEEEC 2017), Amman, Jordan, May 2017.
- The Third International Conference on Environmental and Innovation, Amman, Jordan, May 2016.
- The Fourth International Conference on Future Generation Communication Technologies (FGCT 2015), Luton, UK, July 2015.
- , " IET International Communication Conference on Wireless Mobile & Computing (CCWMC2009), Shanghai, China, December 2009.
- IEEE Vehicular Technology Conference (VTC-Fall 2007), Baltimore, Maryland, September 2007.
- IEEE Wireless Communications and Networking Conference (WCNC 2004), Atlanta, Georgia, March 2004.

14. Participation in or organization of curricular and/or extra-curricular activities

- Reviewer for IEEE Transactions on Vehicular Technologies, IEEE Transactions on Wireless Communications, IEEE Signal Processing Letters, IEEE Communication Letters, ELSEVIER Signal Processing, IET Communications and many national and international conferences.
- Session chair for Fourth International Conference on Future Generation Communication Technologies (FGCT 2015), Luton, UK, July 2015.(.
- Session chair for Mobile Computing and Wireless Communication International Conference 2006, Amman, Jordan, 2006 .

15. Publications

- Papers in refereed journals

[J1] S. Al-Jazzar, S. Aldalameh, D. C. McLernon and S.A.R Zaidi, " *Intruder Localization and Tracking Using Two Pyroelectric Infrared Sensors*," IEEE Sensors Journal (*Publisher: IEEE*), vol. 20, pp. 6075-6082, February 2020.

[J2] S. Al-Jazzar and Y. Jaradat, "AOA-based drone localization using wireless sensor-doublers," Physical Communications (*Publisher: Elsevier*), vol. 42, October 2020.

[J3] S. Al-Jazzar, M. Ghogho and D. C. McLernon, "A TOA/AOA constraint minimization method for wireless positioning in Non-Line-Of-Sight environment," IEEE Transactions on Vehicular Technologies (*Publisher: IEEE*), vol. 58, pp.468-472, January 2009.

[J4]S. Al-Jazzar, J. Caffery, Jr. and H.-R. You, "Scattering model-based solutions to TOA location in NLOS environments," IEEE Transactions on Vehicular Technologies (*Publisher: IEEE*), vol. 56, p.p. 583-593, March 2007.

[J5] S. Al-Jazzar, D. C. McLernon and M. Smadi, "SVD-based joint azimuth/elevation estimation with automatic pairings," Signal Processing (*Publisher: Elsevier*), vol. 90, issue 5, p.p.1669-1675, May 2010.

[J6] S. Al-Jazzar, A. Muchkaev, Ahmad Al-Nimrat and M. Smadi, "Low complexity and high accuracy angle of arrival estimation using eigenvalue decomposition with



extension to 2D AOA and power estimation," EURASIP Journal on Wireless Communications and Networking (Publisher: Springer), doi:10.1186/1687-1499-2011-123, October 2011.

[J7] S. Al-Jazzar, "Enhancement of wireless positioning in outdoor suburban NLOS environment using Hybrid-Network-GPS systems," EURASIP Journal on Wireless Communications and Networking (Publisher: Springer), doi: 10.1186/1687-1499-2012-100, March 2012.

[J8] S. Al-Jazzar, D. C. McLernon, J. Caffery, Jr., M. Smadi and J. Ghaeb, "A modified unscented filter for delay tracking in asynchronous CDMA," AEÜ - International Journal of Electronics and Communications (Publisher: Elsevier), vol. 65, issue 1, p.p. 9-15, January 2011.

[J9] S. Al-Jazzar, Ahmad Al-Nimrat and M. Smadi, "Delay estimation enhancement in CDMA systems using optimum training bits' power," AEÜ - International Journal of Electronics and Communications (Publisher: Elsevier), vol. 66, issue 3, p.p. 244-248, March 2012.

[J10] S. Al-Jazzar, "Angle of Arrival Estimation Using Cholesky Decomposition," International Journal of Antennas and Propagation (Publisher: Hindawi), doi:10.1155/2012/803617, March 2012.

[J11] S. Al-Jazzar, Z. Hamici and S. Aldalameh, "Two-Dimensional AOA Estimation Based on a Constant Modulus Algorithm," International Journal of Antennas and Propagation (Publisher: Hindawi), doi:10.1155/2017/3214021, January 2017.

[J12] S. Al-Jazzar and S. Aldalameh, "AOA, Delay, and Complex Propagation Factor Estimation for the Monostatic MIMO Radar System," International Journal of Antennas and Propagation (Publisher: Hindawi), doi:10.1155/2018/2054271, November 2018.

[J13] S. Aldalameh, S. Al-Jazzar, Des McLernon, A. Zaidi and M. Ghogho, "Fusion Rules for Distributed Detection in Clustered Wireless Sensor Networks with Imperfect Channels," IEEE Transactions on Signal and Information Processing over Networks (Publisher: IEEE), vol. 5, pp. 585-597, September 2019.

[J14] M. Smadi, M. Ababneh and S. Al-Jazzar, "Simulation and numerical analysis of wireless PSK systems with imperfect carrier phase recovery," International Journal of Modeling and Simulation (Publisher: Actapress), vol. 29, no.4, pp. 405-409, November 2009.

[J15] M. Smadi, V. Prabhu and S. Al-Jazzar, "Analytical Study on the Effect of Cochannel Interference on Partially Coherent Diversity Systems," IEEE Transactions on Communications (Publisher: IEEE), vol. 57, issue 1, p.p. 117-124, January 2009.

[J16] M. Smadi, S. Al-Jazzar and J. Ghaeb, "Simplified bit error rate evaluation of Nakagami-m PSK systems with phase error recovery," Wireless Communication and Mobile Computing (Publisher: Wiley), vol. 12, issue 3, p.p. 248-256, February 2012.

[J17] M. Smadi, J. Ghaeb and S. Al-Jazzar, "Confidence Intervals Verification for Simulated Error Rate Performance of Wireless Communication," Wireless Personal Communications (Publisher: Springer), vol. 71, issue 4, p.p. 2463-2474, August 2013.

[J18] Y. Al-Kharabsheh, M. Amin and S. Al-Jazzar, "Closed form Delay/Doppler/Propagation Factor Acquisition for GPS Signals," WSEAS Transactions on Signal Processing (Publisher: WSEAS), vol. 11, Art. #21, pp. 174-177, 2015.

[J19] Y. Jaradat, M. Masoud and Saleh Al-Jazzar, "A comparative study of the effect of node distributions on 2D and 3D heterogeneous WSN," International Journal of Sensor Networks, (Publisher: Inderscience), vol. 33, issue 4, pp. 202-210, 2020.



[J20] Y. Jaradat, M. Masoud, S. Al-Jazzar and M. Alia, "Optimal network dimensions for energy conservation in clustered 3D WSN," *Wireless Networks*, (Publisher: Springer), pp. 1821-1833, April 2021.

- Conference Presentations

[C1] S. Al-Jazzar and Saad Shaker "Blind self-interface cancelation for amplify and forward relaying," The 10th Jordan International Electrical and Electronics Engineering Conference (JIEEEEC 2017), Amman, Jordan, May 2017. (Best paper award)

[C2] S. Al-Jazzar, "Self-interference minimization for Decode and Forward relays using tri-level coding," The Third International Conference on Environmental and Innovation, Amman, Jordan, May 2016.

[C3] S. Al-Jazzar and S. Aldalhmeh, "Relay self-interference minimisation for QAM," The Fourth International Conference on Future Generation Communication Technologies (FGCT 2015), Luton, UK, July 2015. (Best paper award)

[C4] S. Al-Jazzar, Hal J. Strangeways and Desmond C. McLernon, "2-D Angle of Arrival Estimation Using a One-Dimensional Antenna Array," The European Signal Processing Conference (EUSIPCO 2014), Lisbon, Portugal, September 2014.

[C5] S. Al-Jazzar and Tareq Al-Naffouri, "Relay self-interference minimisation using tapped filter," The 8th International Workshop on Systems, Signal Processing and their applications (WOSSPA 2013), Algiers, Algeria, May 2013.

[C6] S. Al-Jazzar, "Angle of arrival estimation using Eigenvalue decomposition for higher resolution at small angular separation," IET International Communication Conference on Wireless Mobile & Computing (CCWMC2009), Shanghai, China, December 2009.

[C7] S. Al-Jazzar and M. Ghogho, "A Joint TOA/AOA constrained minimization method for locating wireless devices in Non-Line-of-Sight environment," IEEE Vehicular Technology Conference (VTC-Fall 2007), Baltimore, Maryland, September 2007.

[C8] S. Al-Jazzar and J. Caffery, Jr., "A novel AOA/Delay estimator for wideband DS-SS systems," 14th IST Mobile & Wireless Communications Summit, Dresden, Germany, June 2005.

[C9] S. Al-Jazzar and J. Caffery, Jr., "A novel NLOS identification for moving MS," 14th IST Mobile & Wireless Communications Summit, Dresden, Germany, June 2005.

[C10] S. Al-Jazzar and J. Caffery, Jr., "NLOS mitigation for urban environments," IEEE Vehicular Technology Conference (VTC-Fall 2004), Los Angeles, California, September 2004.

[C11] S. Al-Jazzar and J. Caffery, Jr., "ESPRIT-based joint AOA/Delay estimation for CDMA-system," IEEE Wireless Communications and Networking Conference (WCNC 2004), Atlanta, Georgia, March 2004.

[C12] S. Al-Jazzar and J. Caffery, Jr., "ML and Bayesian TOA location estimators for NLOS environments," IEEE Vehicular Technology Conference (VTC-Fall 2002), Vancouver, BC, Canada, September 2002, pp. 1178-1181.

[C13] S. Al-Jazzar, J. Caffery, Jr. and H. R. You, "A scattering model based approach to NLOS mitigation in TOA location systems," IEEE Vehicular Technology Conference (VTC-Spring2002), Birmingham, Alabama, May 2002, vol. 2, pp. 861-865.

[C14] S. Aldalhmeh, S. O. Al-Jazzar, D. McLernon, S. A. Raza Zaidi and M. Cárdenas, "Distributed Combining Techniques for Distributed Detection in Fading Wireless Sensor Networks," 2019 2nd IEEE Middle East and North Africa COMMUNICATIONS Conference (MENACOMM), Manama, Bahrain, 2019, pp. 1-6.