



Name: Dr. Amin Al Ka'bi

Rank: Associate Professor - Electrical & Electronics Engineering

Personal Information

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Professional Information

Education:	Qualification: Doctorate Major: Electrical engineering College/University: University of Queensland / Australia Year: 2006
	Qualification: Masters Major: Electrical engineering College/University: University of Jordan Year: 1992
	Qualification: Bachelor Major: Electrical engineering College/University: University of Jordan Year: 1989
Specialization:	Electrical Engineering / Communications
Current Academic Position:	Associate Professor - Electrical & Electronics Engineering
Current Professional Positions:	- Member of Association of Engineers, Jordan. - Member of Institution of Engineers, Australia.
Previous Administrative Position Held:	- Head of Engineering Degree Programs at the Australian University. - Head of Computer Networking and Hardware in Civil Aviation Authority, Jordan. - Head of Automated Teller Machines (ATM's) unit in Housing Bank, Jordan. - Head assistant of Computer Networking at Jordan Islamic Bank
Previous Academic Positions Held:	- Lecture in Computer Engineering, King Fahd University of Petroleum & Minerals in Saudi Arabia

Fellowships And Honors:	Honorary Associate at the University of Tasmania, Australia.
Teaching Experience:	28 years of teaching experience, detailed as follows: - - Feb. 2007 to date, Lecturer, Assistant Professor, and Associate Professor at Electrical & Electronics Engineering Dept., AU. - 2009 to 2012, Head of Engineering Degree Program. - 1999 to 2005, Lecturer in Computer Engineering at King Fahd University of Petroleum & Minerals in Saudi Arabia. - 1997 to 1999, Lecturer at Queen Noor College for Civil Aviation at Jordanian Civil Aviation Authority in Jordan.
Industrial And Technical Experience:	- 1999 to 2005 Networking Engineer at IT center of King Fahd University of Petroleum & Minerals in Saudi Arabia. - 1995 to 1997 Networking and systems Engineer at Jordan Islamic Bank in Amman, Jordan - 1993 to 1995 Networking and systems Engineer at Housing Bank in Amman, Jordan - 1992 to 1993 Electrical System Design Engineer at Al-Arabi Group – Consulting Engineers in Amman, Jordan.
Research Interest:	- Wireless Communication Systems. - Signal Processing. - Information Theory. - Adaptive Array Antennas/Sensors. - Digital Communication Systems. - Analog Electronic Circuits. - Programmable Logic Controllers.
Research Grants:	- Two AU research grants. - Two KFAS research grant.
Research and Publications including Journal and Books:	International Book publications - Amin Al-Ka'bi, "Wireless Communication Systems: Performance Enhancement Using Adaptive Array Antennas", LAP Lambert Academic Publishing, Nov. 2009, ISBN-13: 978-3838310855. Book Chapters - Amin Al Ka'bi, "Steered Beam Adaptive Antenna Arrays ", Open access peer-reviewed Book chapter, Book title: "Antenna Systems", ISBN: 978-1-83968-829-4, published by Intertechopen, Sep. 23rd, 2021. DOI: 10.5772/intechopen.100168. Refereed Scopus and WoS indexed Journal Papers: - - Amin Al-Ka'bi, Marek Bialkowski, and John Homer, "Performance Comparison between Uniformly and Non-Uniformly Spaced Adaptive Antennas with Respect to Tolerance to Pointing Errors," Journal of Microwave and Optical Technology Letters, ISSN: 1098-2760, Impact factor: 0.568, vol. 48, No. 11, November 2006. - Amin Al-Ka'bi, Marek Bialkowski, and John Homer, "Performance of Adaptive Array Antennas in Mobile Fading Environment", Transactions of Circuits, Devices and Systems, Journal of Institution of Engineering and Technology (IET), ISSN 1751-8598, Impact factor: 0.521, vol. 2, Issue 1, pp. 95-102, DOI: 10.1049/iet-cds:20070032, February 2008.

- Amin Al Ka'bi, "Computation of Extended Suzuki Mobile Fading Channel (Type I) Parameters", The ECTI Transactions on Electrical Engineering, Electronics, and Communications (EEC) (ISSN 1685-9545), Vol 15, No 2 (Sep. 2017), Regular Issue. ECTI-EEC is currently indexed by SCOPUS, Asian Citation Index (ACI) and Thai journal Citation Index (TCI).
- Amin Al Ka'bi, "Proposed Model for Frequency Tuning of Ferrite-Based Inverted F-Antenna", Telecommunications and Radio Engineering, 2020, Vol. 79, Issue No. 3, pages 223-230, Bentham Science Publisher, ISSN:0040-2508, E-ISSN:1943-6009.
- Amin Al Ka'bi, "Performance of Adaptive Antennas in Presence of Polarized Electromagnetic Signals", Telecommunications and Radio Engineering, 2020, Vol. 79, Issue No. 4, pages 291-304 Bentham Science Publisher, ISSN:0040-2508, E-ISSN:1943-6009.
- Amin H. Al Ka'bi, "Comparative analysis of Simulation Applications Used for Energy Consumption in Green Buildings", Recent Advances in Electrical & Electronic Engineering, 2020, Vol. 13, No. 3, pp 1-6, Bentham Science Publisher, Print ISSN 2352-0965, Online-ISSN 2352-0973. DOI: 10.2174/2352096513666191218151744
- Q2 Journal Amin H. Al Ka'bi, " Comparison of energy simulation applications used in green building", Annals of Telecommunications, Electronic ISSN 1958-9395, Print ISSN 0003-4347, Volume 75, Issue 7-8, pp 271 – 290, August 2020.
- Amin H. Al Ka'bi, "Effect of Polarization on the Performance of Adaptive Antenna Arrays", Journal of Communications, ISSN:1796-2021, Vol. 15, no. 9, pp. 661-668, Sep. 2020. Doi: 10.12720/jcm.15.9.661-668.
- Q2 Journal Amin Al Ka'bi, Magid Rady, "A proposed Model for Frequency Tuned Antennas Used in Mobile Communication Systems", International Journal of Electrical and Computer Engineering (IJECE), ISSN: 2088-8708, Vol 11, No 2, pp. 1367~1374, April 2021.
- Amin Al Ka'bi, "Effect of polarized signals on the performance of adaptive antenna arrays", Archives of Electrical Engineering, ISSN: 1427-4221, Vol. 69(4), pp. 857-872, December 2020. DOI: 10.24425/aee.2020.134635
- Q2 Journal Amin Al Ka'bi, "The effects of mutual coupling and polarization on the performance of steered-beam adaptive arrays", Journal of Computational Electronics, ISSN: 1569-8025, 20(1), 458-466, DOI: 10.1007/s10825-020-01635-xOI: 10.1007/s11277-021-08144-
- Amin Al Ka'bi, "Design of an Electromagnetic Frequency Tuned Antenna for Mobile Communications", Journal: Wireless Personal Communications, 118(4), 2601–2610(May 2021). DOI: <https://doi.org/10.1007/s11277-021-08144-5>.

- Amin Al Ka'bi, "Management of Energy Consumption Using Programmable Logic Controllers (PLC's)", *Proceedings on Engineering Sciences Journal*, ISSN: 2620-2832, Volume 3 No. 3, DOI: 10.24874/PES03.03.003
- Amin Al Ka'bi, "Optimization of Energy Harvesting in Mobile Wireless Sensor Networks", *Journal of Communications (JCM)*, ISSN:1796-2021, pp. 267-272, Vol. 17, No. 4, Apr. 2022, DOI: 10.12720/jcm.17.4.267-272
- Amin Al Ka'bi, "Enhancement of Energy Harvesting Efficiency in Mobile Wireless Sensor Networks", *WSEAS Transactions on Communications*, ISSN / E-ISSN: 1109-2742 / 2224-2864, Volume 21, 2022, Art. #18, p.129-134, 10.37394/23204.2022.21.18 , May 2022.
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- Amin Al Ka'bi, "A Proposed Method for Synthesizing the Radiation Pattern of Linear Antenna Arrays", *Journal of Communications (JCM)*, ISSN:1796-2021, pp. 553-558, Vol. 17, No. 7, July 2022, DOI: <http://doi.org/10.12720/jcm.17.6.553-558>
- Amin Al Ka'bi, "A Proposed Antenna Design for IoT and 5G-WiFi Applications" *Telecommunications and Radio Engineering*, pp. 15-22, Volume 81, Issue 6, October 2022. DOI: 10.1615/TelecomRadEng.2022044475
- Amin Al Ka'bi, "A Proposed Compact Broadband Meander Antenna for RFID Applications," *Journal of Communications*, ISSN: 1796-2021 (Online); 2374-4367 (Print), vol. 18, no. 3, pp. 140-146, March 2023. Doi: 10.12720/jcm.18.3.140-146.
- Amin Al Ka'bi, "Design of a Microstrip Dual Band Fractal Antenna for Mobile Communications", *Journal of "Telecommunications and Radio Engineering"*, Volume 82, Issue 4, pp. 61-77, April 2023.
- Amin Al Ka'bi, "A Proposed Artificial Intelligence Algorithm for Development of Higher Education", *WSEAS Transactions on Computers*, ISSN / E-ISSN: 2224-2872 / 1109-2750, Volume 22, pp. 7-12, January 2023.
- Amin Al Ka'bi, "Proposed Artificial Intelligence Algorithm and Deep Learning Techniques for Development of Higher Education", *International Journal of Intelligent Networks*, ISSN: 2666-6030, Issue 4, pp. 68-73, April 2023.

	- Amin Al Ka'bi, "Improvement of Energy Collection Efficiency in Mobile Sensor Networks", <i>Journal of Telecommunications and Radio Engineering</i>, Volume 82, issue 7, pp. 43–54, July 2023. - Amin Al Ka'bi, "Improvement of Energy Collection Efficiency in Mobile Sensor Networks", <i>Journal of Telecommunications and Radio Engineering</i>, Volume 82, issue 7, pp. 43–54, July 2023. DOI: 10.1615/TelecomRadEng.2023041704. - Amin Al Ka'bi, "Proposed Prototype of a Microstrip Fractal Dual Band Antenna for Mobile Communications", <i>Journal: Wireless Personal Communications</i>, 133, 2581–2600 (2023), published 21, Feb. 2024 doi: 10.1007/s11277-024-10891-0 - Amin Al Ka'bi, Ali Mustafa, "Design of MIMO Antenna for Wideband THz Mobile Communications", <i>Journal of Telecommunications and Radio Engineering</i>, 83(8):1–12 (2024), published in May 2024. DOI: 10.1615/TelecomRadEng.2024051220 - Amin Al Ka'bi, "Planar MIMO Antenna Model for Spectrum Sensing Applications", <i>Journal: Wireless Personal Communications</i>, 135, 919–939 (2024), DOI: "https://doi.org/10.1007/s11277-024-11091-6 - Amin Al Ka'bi, "Novel Design of a Dual-Band Microstrip Antenna Array for 6G mmWave Applications", <i>Accepted for publication in "Scientific Reports", September 2025, publisher: Springer Nature.</i>
Paper Presentations at Professional Conferences:	Refereed (Peer-reviewed) International Conference Papers: - - Amin H. Al-Ka'bi, A.H. El-Gezawi, O.B.; Abdelazeez, M.K., "The effect of pointing errors on adaptive antennas performance," <i>Antennas and Propagation Society International Symposium, AP-S. Digest, Vol. 3, Pages: 1880 – 1883, Vol.3, DOI: 10.1109/APS.1993.385571, 28 June - 2 July 1993.</i> - Amin Al-Ka'bi and John Homer, "Wireless Communication System Performance Enhancement Using Adaptive Array Antennas," <i>Proceedings of the Fourth International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP)</i>, pp. 252-256, UK, July 2004. - Amin Al-Ka'bi and John Homer, "Parameters Computation of the Modified Loo Mobile Fading Channel", <i>Proceedings of the 11th European Wireless Conference, Next Generation Wireless and Mobile Communications and Services, Cyprus, vol. 2, pp. 745-748, April 2005.</i> - Amin Al-Ka'bi and John Homer, "Parameters Computation of the Extended Suzuki Mobile Fading Channel of Type II," <i>Proceedings of the 2005 IEEE International Workshop on Signal Processing Advances for Wireless Communications (SPAWC 2005)</i>, New York City, pp. 241 - 245, DOI: 10.1109/SPAWC.2005.1505908, 5-8 June 2005. - Amin Al-Ka'bi, Marek Bialkowski, and John Homer, "Mitigation of Multipath Propagation with the Use of a Non-Uniform Spaced Adaptive

Array Antenna,” 2005 IEEE Antenna and Propagation Society (AP-S) International Symposium and USNC/URSI National Radio Science Meeting, vol. 2B, Pages: 56 – 59, vol. 2B, DOI: 10.1109/APS.2005.1551934, Washington DC, 3-8, July 2005.

- Mohamed Deriche, Al-Ka'bi, Amin; “On the performance of adaptive steerable antenna arrays in communication applications,” 1st International Conference on Computers, Communications, & Signal Processing, 2005. CCSP 2005. P-ISBN: 978-1-4244-0011-9, pp. 15 - 20, DOI: 10.1109/CCSP.2005.4977150, publisher: IEEE, Kuala Lumpur, Malaysia, November 2005.
- Amin H. Al-Ka'bi and John Homer, “Parameters Computation of the Extended Suzuki Mobile Fading Channel of Type I,” Proceedings of the 8th International Symposium on DSP and Communication Systems, DSPCS'2005 & 4th Workshop on the Internet, Telecommunications and Signal Processing, WITSP'2005, Noosa Heads (Sunshine Coast, Australia), 19-21 December 2005.
- Amin Al-Ka'bi, Marek Bialkowski, and John Homer, “On the Performance of Adaptive Antenna Arrays in Mobile Fading Environment,” Proceedings of 16th International conference on Microwaves, Radar, and Wireless Communications, (MIKON2006), IEEE conference publications, pp. 465 - 468, DOI: 10.1109/MIKON.2006.4345219, Poland, Krakow, May 22-24, 2006.
- Amin Al-Ka'bi, John Homer and Marek Bialkowski, “Effect of Mutual Coupling on the Performance of Uniformly and Non-Uniformly spaced Adaptive Array Antennas,” Proceedings of the Fifth International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP06), Patras, Greece, July 2006.
- Amin Al-Ka'bi, Marek Bialkowski, and John Homer, “Performance of Adaptive Array Antennas in Mobile Fading Environment,” Proceedings of the Fifth International Symposium on Communication Systems, Networks and Digital Signal Processing (CSNDSP06), Patras, Greece, July 2006.
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- Amin Al-Ka'bi, “Novel Method for Using Adaptive Array Antennas in DS-CDMA Mobile Radio Systems,” Proceedings of the 5th European Conference on Antennas and Propagation (EuCAP2011) – ANTENNAS, IEEE conference publications, Page(s): 1027 – 1031, Rome, Italy, on 11-15 April 2011.
- Amin Al-Ka'bi, “Security in Mobile Wireless Networks” Proceedings of IEEE International Conference on Signal Processing and Communication (ICSC-2013), Page(s): 9 - 13, DOI: 10.1109/ICSPCom.2013.6719746, Noida, Uttar Pradesh, India, on 12-14, December 2013.
- Amin Al-Ka'bi, “On modeling of Wireless MIMO Channel”, Proceedings of IEEE Sixth International Conference on Intelligent Systems, Modeling and Simulation (ISMS-2015), pp. 215 - 219, DOI: 10.1109/ISMS.2015.10, Kuala Lumpur, Malaysia, on 9 – 12, February 2015.

- Amin Al-Ka'bi, "On Frequency Tuning of Inverted F Antenna", Proceedings of The International Conference on Digital Information Processing, Electronics, and Wireless Communications (DIPEWC2016), ISBN: 978-1-941968-32-1, Page(s): 11-14, Islamic Azad University (IAU), UAE Branch, Academic City, Dubai, 2-4, March 2016.
- Al Ka'bi, A. (2016). 'On Frequency Tuning of Inverted F Antenna', The International Conference on Electrical Engineering, 10(10th International Conference on Electrical Engineering ICEENG 2016), ISSN: 2636-4441, pp. 1-3. DOI: 10.21608/iceeng.2016.30338
- Amin Al Ka'bi, "Design of PIFA Antenna Design for 4G Wireless Systems", Proceedings of 2nd IEEE International Conference on Information Technology, Information System and Electrical Engineering 2017, pp.187-190, Yogyakarta, Indonesia during 1 – 2, November 2017. DOI: 10.1109/ICITISEE.2017.8285492, EID: 2-s2.0-85050382037.
- Amin Al Ka'bi, "Comparison of Simulation Applications Used for Energy Consumption in Green Buildings", Proceedings of 11th IEEE International Conference on Computational Intelligence and Communication Networks (CICN 2019), University of Hawaii (Manoa Campus) in Honolulu, Hawaii, USA, 3-6 Jan. 2019, and published by IEEE Xplore, EID: 2-s2.0-85075939706.
- Amin Al Ka'bi, "Energy Consumption Management Using Programmable Logic Controllers (PLC's)", Proceedings of 2021 IEEE Technology and Engineering Management Conference – Europe (TEMSCON EUROPE 2021), Dubrovnik, Croatia, pp. 1-6, 17th – 21st May 2021. DOI: 10.1109/TEMSCON-EUR52034.2021.9488607
- Amin Al Ka'bi, "Management of Electrical Lighting System Using Programmable Logic Controllers", Proceedings of the 2nd IEEE International Conference on Smart Computing and Electronic Enterprise (ICSCEE 2021), Cameron Highlands, Malaysia, pp. 121-126, 15th – 17th June 2021. DOI: 10.1109/ICSCEE50312.2021.9498023
- Amin Al Ka'bi, "Enhancement of Energy Harvesting Efficiency in Mobile Wireless Sensor Networks," 2021 IEEE 12th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (IEEE UEMCON 2021), pp. 0137-0142, DOI: 10.1109/UEMCON53757.2021.9666602. New York, USA, 1st – 4th December 2021.
- Amin Al Ka'bi, "Proposed Antenna Design for IoT and 5G-WiFi Applications," Proceedings of 2022 IEEE World AI IoT Congress (AllIoT), 2022, pp. 786-790, DOI: 10.1109/AllIoT54504.2022.9817261, Seattle, USA, 6–9 June 2022.
- Amin Al Ka'bi, "A Proposed Algorithm for Synthesizing the Radiation Pattern of Antenna Arrays," Proceedings of 2022 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), pp. 112-117, DOI: 10.1109/BlackSeaCom54372.2022.9858301, Sofia, Bulgaria, 6–9 June 2022.
- Amin Al Ka'bi, "Design of a Microstrip Dual Band Fractal Antenna for Mobile Communications," Proceedings of 2022 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom),

	pp. 85-90, DOI: 10.1109/BlackSeaCom54372.2022.9858198 , Sofia, Bulgaria, 6–9 June 2022. - Amin Al Ka'bi, "Challenges Encountered by Artificial Intelligence Applications in Today's Interconnected World," Proceedings of IEEE International Conference on Electrical Computer and Energy Technologies (ICECET 2022), pp. 1-6, DOI: 10.1109/ICECET55527.2022.9873465, Prague, Czech Republic, 20-22 July 2022. - A. Al Ka'bi, "Proposed Artificial Intelligence Algorithm for Developing Higher Education," 2022 5th International Seminar on Research of Information Technology and Intelligent Systems (ISRITI), organized by Universitas Technology Digital Indonesia, Yogyakarta, Indonesia, Yogyakarta, 8-9 December 2022, pp. 559-564, doi: 10.1109/ISRITI56927.2022.10052914. - Amin Al Ka'bi, "A Proposed MIMO Antenna Design for Ultra-Wideband THz Applications", 7th International Conference on System Reliability and Safety (ICSRS 2023), November 22-24, 2023, Bologna, Italy. - A. A. Ka'bi, "Ultra-Wideband MIMO Antenna Design for THz Application," 2023 6th International Conference on Advanced Communication Technologies and Networking (CommNet), Rabat, Morocco, December 11-13, 2023, pp. 1-6, doi: 10.1109/CommNet60167.2023.10365270. - A. Al Ka'bi and K. AbuJbara, "Reliability Analysis and Evaluation of PLC's Functional Diagrams," Proceedings of 2024 IEEE International Conference on Computer and Applications (IEEE/ICCA), Cairo, Egypt, 2024, pp. 675-680, DOI: 10.1109/ICCA62237.2024.10927880. - A. Al Ka'bi and K. AbuJbara, "Design of Wideband MIMO Antenna for 6G THz Systems," Proceedings of 2024 IEEE International Conference on Computer and Applications (IEEE/ICCA), Cairo, Egypt, 2024, pp. 681-686, DOI: 10.1109/ICCA62237.2024.10927907. - Amin Al Ka'bi, "Innovative PLC Control Algorithms in Buildings Using Automated Code Generation," Proceedings of the International IoT, Electronics and Mechatronics Conference (IEMTRONICS 2025), April 3rd to April 5th, 2025, at Imperial College London, United Kingdom. - Amin Al Ka'bi, "PLC-Based Load Control and IoT-Energy Monitoring for Grid-Connected Hybrid Systems.," Proceedings of the International IoT, Electronics and Mechatronics Conference (IEMTRONICS 2025), April 3rd to April 5th, 2025, at Imperial College London, United Kingdom.
College Service including committee Membership:	- Chair of Validation and Moderation Committee at Electrical & Electronics Engineering Dept., AU. - Member of research, and Auditing & Quality assurance departmental committees.
National Service:	NA
College Committees:	NA