Mua'ad Majed Abu-Faraj

Professor of Computer Engineering
Department of Computer Information Systems
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Personal Details

Date of Birth: April 28, 1982
Place of Birth: Dhahran - Saudi Arabia
Nationality: Jordanian
Marital Status: Married, two children

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P: https://www.webofscience.com/wos/author/record/ABF-8837-2021

Education

May 2012	**Ph.D.** in **Computer Science and Engineering** **University of Connecticut**, Storrs, Connecticut, U.S.A. Thesis: "Architectural Considerations for a Shared Out-Of-Core Dynamically Reconfigurable Fabrics"
May 2012	**M.Sc.** in **Computer Science and Engineering** **University of Connecticut**, Storrs, Connecticut, U.S.A.
September 2005	**M.Sc.** in **Computer and Network Engineering** **Sheffield Hallam University**, Sheffield, U.K. Thesis: "An Analysis of the Effect of Contention-Window and Arbitration Inter-Frame Space on the Performance of Wireless AD-Hoc Network"
September 2004	**B.Eng.** in **Computer Engineering** **Mu'tah University**, Mu'tah, Jordan
August 2000	**General Secondary Education Certificate, Scientific Branch** **Aqaba Secondary School**, Aqaba, Jordan.

Academic Experience

December 2023	**Professor** Department of Computer Information Systems School of Information Technology and Systems The University of Jordan

DECEMBER 2023 DECEMBER 2018	**Associate Professor** DEPARTMENT OF COMPUTER INFORMATION SYSTEMS SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
DECEMBER 2018 FEBRUARY 2014	**Assistant Professor** DEPARTMENT OF COMPUTER INFORMATION SYSTEMS SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
FEBRUARY 2014 JANUARY 2013	**Lecturer** DEPARTMENT OF COMPUTER INFORMATION SYSTEMS SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
JANUARY 2013 SEPTEMBER 2012	**Part-time Lecturer** DEPARTMENT OF COMPUTER INFORMATION SYSTEMS SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
MAY 2012 AUGUST 2008	**Teaching Assistant** DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING SCHOOL OF ENGINEERING UNIVERSITY OF CONNECTICUT
MAY 2008 AUGUST 2006	**Teaching Assistant** DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING SCHOOL OF ENGINEERING UNIVERSITY OF SHEFFIELD

ADMINISTRATIVE EXPERIENCE

SEPTEMBER 2024 OCTOBER 2022	**Assistant to the President** THE UNIVERSITY OF JORDAN
SEPTEMBER 2023 SEPTEMBER 2019	**Dean** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
JUNE 2022 JUNE 2018	**Member of Board of Trustees** GERMAN JORDANIAN UNIVERSITY
OCTOBER 2021 SEPTEMBER 2019	**Registrar General** THE UNIVERSITY OF JORDAN
SEPTEMBER 2017 MARCH 2015	**Director** INFORMATION TECHNOLOGY CENTER THE UNIVERSITY OF JORDAN
AUGUST 2014 AUGUST 2013	**Dean's Assistant** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
AUGUST 2014 AUGUST 2013	**Director of Quality Assurance and Academic Development** THE UNIVERSITY OF JORDAN

SERVICE AND COMMITTEE WORK

External Committees

FEBRUARY 2025	**Member, Committee for Assessing the Award of the Jordanian Quality Assurance Certificate to Aqaba University College - Al-Balqa Applied University**

	ACCREDITATION AND QUALITY ASSURANCE COMMISSION FOR HIGHER EDUCATION INSTITUTIONS
JULY 2023	**Coordinator, University Accreditation Committee, Al Hussein Bin Talal University**
	ACCREDITATION AND QUALITY ASSURANCE COMMISSION FOR HIGHER EDUCATION INSTITUTIONS
JULY 2023	**Coordinator, University Accreditation Committee, Tafila Technical University**
	ACCREDITATION AND QUALITY ASSURANCE COMMISSION FOR HIGHER EDUCATION INSTITUTIONS
JUNE 2023	**Coordinator, University Accreditation Committee, Aqaba University of Technology**
	ACCREDITATION AND QUALITY ASSURANCE COMMISSION FOR HIGHER EDUCATION INSTITUTIONS
OCTOBER 2021 OCTOBER 2020	**Member, Investment Fund Committee** GERMAN JORDANIAN UNIVERSITY
APRIL 2021	**Member, University Accreditation Committee, Aqaba University of Technology**
	ACCREDITATION AND QUALITY ASSURANCE COMMISSION FOR HIGHER EDUCATION INSTITUTIONS

University Committees

SEPTEMBER 2025 SEPTEMBER 2023	**Member, University Scientific Research Council** THE UNIVERSITY OF JORDAN
OCTOBER 2024 OCTOBER 2023	**Member, Online Learning Committee** THE UNIVERSITY OF JORDAN
JUNE 2024 JUNE 2023	**Member, University Graduation Committee** THE UNIVERSITY OF JORDAN
MAY 2024	**Coordinator, University Committee for Revising Compulsory and Elective Course Requirements** THE UNIVERSITY OF JORDAN
APRIL 2024	**Member, Student Election Committee** THE UNIVERSITY OF JORDAN
DECEMBER 2023	**Member, Graduate Studies Committee** THE UNIVERSITY OF JORDAN
DECEMBER 2023	**Member, English Language and Computer Skills Competencies Committee** THE UNIVERSITY OF JORDAN
SEPTEMBER 2024 OCTOBER 2023	**Member, The University of Jordan Local Accreditation Committee** THE UNIVERSITY OF JORDAN
OCTOBER 2023 JANAURY 2023	**Member, Higher Committee for National and International Accreditation** THE UNIVERSITY OF JORDAN
OCTOBER 2023 OCTOBER 2022	**Coordinator, Students' Academic Affairs Committee** THE UNIVERSITY OF JORDAN
SEPTEMBER 2022 SEPTEMBER 2019	**Member, Students' Academic Affairs Committee** THE UNIVERSITY OF JORDAN
JULY 2022	**Member, Recruitment Committee**

	THE UNIVERSITY OF JORDAN
JANUARY 2022	**Member, Programs Establishment Committee** THE UNIVERSITY OF JORDAN
SEPTEMBER 2021 APRIL 2021	**Member, Online/Blended Learning Committee** THE UNIVERSITY OF JORDAN
SEPTEMBER 2020 SEPTEMBER 2019	**Coordinator, University Website Development Committee** THE UNIVERSITY OF JORDAN
SEPTEMBER 2020 SEPTEMBER 2019	**Member, The University of Jordan at Aqaba Development Committee** THE UNIVERSITY OF JORDAN
JANUARY 2020	**Member, University of Jordan at Aqaba Development Committee** THE UNIVERSITY OF JORDAN
DECEMBER 2019, OCTOBER 2016, NOVEMBER 2013	**Coordinator, Employee Discipline Committee** THE UNIVERSITY OF JORDAN
JUNE 2019, FEBRUARY 2018, APRIL 2013	**Member, Employee Discipline Committee** THE UNIVERSITY OF JORDAN
SEPTEMBER 2018	**Member, Scientific Research Committee** THE UNIVERSITY OF JORDAN
AUGUST 2017 SEPTEMBER 2016	**Member, Students' Discipline Committee** THE UNIVERSITY OF JORDAN
OCTOBER 2014, FEBRUARY 2014	**Member, Recruitment Committee** THE UNIVERSITY OF JORDAN
SEPTEMBER 2014	**Member, University's Website Administration Committee** THE UNIVERSITY OF JORDAN

School Committees

OCTOBER 2026 OCTOBER 2024	**Academic Advisor, Cybersecurity and Smart Networks Program** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2026 OCTOBER 2024	**Member, School Quality Assurance Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2026 OCTOBER 2024	**Member, Local Society Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2026 OCTOBER 2025	**Coordinator, Scientific Research Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2025	**Coordinator, Committee for Reviewing the Scientific Production of Faculty Applicants** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2025	**Coordinator, Committee for Preparing Jordanian Academic Program Accreditation Applications** BUSINESS INFORMATION TECHNOLOGY PROGRAM

SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS
THE UNIVERSITY OF JORDAN

OCTOBER 2025	**Coordinator, Committee for Preparing Jordanian Academic Program Accreditation Applications** CYBERSECURITY AND SMART NETWORKS PROGRAM SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
SEPTEMBER 2025	**Coordinator, Committee for Preparing Jordanian Academic Program Accreditation Applications** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2025 SEPTEMBER 2018	**Member, Social Affairs Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2025 OCTOBER 2024	**Coordinator, Academic Plans and Curriculum Equivalency Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
MAY 2025	**Coordinator, Faculty Hiring Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
MAY 2025	**Member, Promotion Review Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
OCTOBER 2024	**Coordinator, Qualification Placement Committee for the Cybersecurity and Smart Networks Program** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
SEPTEMBER 2024 OCTOBER 2022	**Member, School Council** SCHOOL OF GRADUATE STUDIES THE UNIVERSITY OF JORDAN
SEPTEMBER 2024 OCTOBER 2023	**Coordinator, Scientific Research Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
AUGUST 2020 JUNE 2020	**Coordinator, Online Learning Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
SEPTEMBER 2020 SEPTEMBER 2019	**Coordinator, Postgraduate Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
SEPTEMBER 2019 APRIL 2019	**Member, Postgraduate Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
SEPTEMBER 2019 SEPTEMBER 2017	**Coordinator, Academic Planning and Curriculum Equivalency Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
SEPTEMBER 2019 SEPTEMBER 2017	**Coordinator, Local Society and Graduate Communication Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN

September 2017	**Member, Committee for Establishing the Software Engineering Department** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
March 2017	**Coordinator, Student Election Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
November 2016	**Coordinator, ABET Accreditation Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
September 2017 August 2013	**Member, School Council** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
March 2014	**Member, Student Election Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
December 2013	**Coordinator, Academic Plans Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN
August 2013 February 2013	**Member, Students' Discipline Committee** SCHOOL OF INFORMATION TECHNOLOGY AND SYSTEMS THE UNIVERSITY OF JORDAN

RESEARCH EXPERIENCE

May 2025	**Principal Investigator** RESEARCH GROUP: NEXT-GEN CRYPTOGRAPHY: POST-QUANTUM SECURITY, PRIVACY AND EMERGING THREATS THE UNIVERSITY OF JORDAN
May 2012 August 2008	**Research Assistant** DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING SCHOOL OF ENGINEERING UNIVERSITY OF CONNECTICUT
January 2010 August 2008	**Research Assistant** DAPCO INDUSTRIES. INC.,
May 2008 September 2006	**Research Assistant** DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING SCHOOL OF ENGINEERING UNIVERSITY OF SHEFFIELD

PUBLICATIONS

Theses

1. **M. Abu-Faraj**. Architectural Considerations for a Shared Out-Of-Core Dynamically Reconfigurable Fabric. Ph.D. thesis, University of Connecticut, 2012.

2. **M. Abu-Faraj**. An Analysis of the Effect of Contention-Window and Arbitration Inter-Frame Space on the Performance of Wireless AD-Hoc Network. M.Sc. thesis, Sheffield Hallam University, 2005.

Papers in Refereed Journals

3. K. Aldebei, I. Al-taharwa, and **M. Abu-Faraj**, "Two-Level Supervised Learning for Authorship Attribution of Arabic Texts Based on Linear Classifier," *IEEE Access*, vol. 11, pp. 141657 - 141673, 2023, doi:10.1109/ACCESS.2023.3341395. (Web of Science Indexed, Scopus Indexed)

4. I. Alsmadi, and **M. Abu-Faraj**, "High-Performance Computing and Research Computing Science Drivers in Jordan," *Middle East Development Journal*, vol., no. , pp. -, 2025, doi:10.22937/IJCSNS.2021.21.12.8. (Scopus Indexed) (Accepted, to be published)

5. I. Alsmadi, and **M. Abu-Faraj**, "High-Performance Computing for National Priorities in Jordan: From Water Security to Genomics and Cultural Heritage," *Middle East Development Journal*, vol., no. , pp. -, 2025, doi:10.22937/IJCSNS.2021.21.12.8. (Scopus Indexed) (Accepted, to be published)

6. I. Alsmadi, and **M. Abu-Faraj**, "The Future of Research Computing and HPC in Jordan," *Middle East Development Journal*, vol., no. , pp. -, 2025, doi:10.22937/IJCSNS.2021.21.12.8. (Scopus Indexed) (Accepted, to be published)

7. A. Al-Hyari, C. Obimbo, and **M. Abu-Faraj** , "Dual-Chaos Image Encryption: Integrating Arnold Cat Map and Logistic Dynamics for Enhanced Security," *Journal of Cybersecurity and Privacy*, vol. , Iss. , pp. -, 2025, doi:10.3390/sym0664. (Scopus Indexed) (Accepted, to be published)

8. A. Al-Hyari, **M. Abu-Faraj**, C. Obimbo, and M. Alazab, "Chaotic Hénon–Logistic Map Integration: A Powerful Approach for Safeguarding Digital Images," *Journal of Cybersecurity and Privacy*, vol. 5 , Iss. 1, pp. 1-30, 2025, doi:10.3390/jcp5010008r. (Scopus Indexed)

9. A. Al-Hyari, C. Obimbo, **M. Abu-Faraj**, and I. Al-taharwa, "Generating Powerful Encryption Keys for Image Cryptography with Chaotic Maps by Incorporating Collatz Conjecture," *IEEE Access*, vol. 12, pp. 4825-4844, 2024, doi: 10.1109/ACCESS.2024.3349470. (Web of Science Indexed, Scopus Indexed)

10. B. Al-Ahmad, N. Al-Madi, A. Alzaqebah, R. Alkhawaldeh, K. Aldebei, F. Kabir, I. Al-taharwa, **M. Abu-Faraj**, and I. Aljarrah, "Meta-Heuristic Guided Feature Optimization for Enhanced Authorship Attribution in Java Source Code," *IEEE Access*, vol. 11, pp. 141657 - 141673, 2023, doi:10.1109/ACCESS.2023.3341395. (Web of Science Indexed, Scopus Indexed)

11. A. Alhaj, **M. Abu-Faraj**, and B. Ali, "A Predictive Technique using Random Forest Classifier for Phishing Malicious Attack," *Applied Mathematics & Information Sciences*, vol. 17, No. 6, pp. 1177-1187, 2023, doi:10.18576/amis/170622. (Scopus Indexed)

12. **M. Abu-Faraj**, A. Al-Hyari, C. Obimbo, K. Aldebei, I. Al-taharwa Z. Alqadi, and O. Almanaseer, "Protecting Digital Image Protection Using Keys enhanced by 2D Chaotic Logistic Maps," *Cryptography*, vol. 7, Iss. 2, pp. 20-42, 2023, doi:10.3390/cryptography7020020. (Web of Science Indexed, Scopus Indexed)

13. **M. Abu-Faraj**, A. Al-Hyari, B. Al-Ahmad, Z. Alqadi, B. Ali, and K. Aldebe , "Improving the Efficiency of Median Filters Using Two Rounds of Generated Windows Processing," *Applied Mathematics & Information Sciences (AMIS)*, vol. 17, no. 1, pp. 187-200, 2023, doi:10.18576/amis/170119. (Scopus Indexed)

14. A. Alhaj, N. Zanoon, A. Alrabea, H. Alnatsheh, O. Jawabreh, **M. Abu-Faraj**, and B. Ali, "Smart Cities Traffic Management and Safety Improvement by using VANETs and IoT," *Journal of Statistics Applications & Probability*, vol. 14, no. 2, pp. 405-414, 2023, doi:10.18576/jsap/120207. (Scopus Indexed)

15. **M. Abu-Faraj**, A. Al-Hyari, I. Al-taharwa, Z. Alqadi, and B. Ali, "Increasing the Security of Transmitted Text Messages Using Chaotic Key and Image Key Cryptography," *International Journal of Data and Network Science*, vol. 7, no. 2, pp. 809-820, 2023, doi:10.5267/j.ijdns.2023.1.008. (Scopus Indexed)

16. **M. Abu-Faraj**, A. Al-Hyari, I. Al-taharwa, B. Al-Ahmad, and Z. Alqadi, "CASDC: A Cryptographically Secure Data System Based on Two Private Key Images," *IEEE Access*, vol. 10, pp. 126304 - 126314, 2022, doi:10.1109/ACCESS.2022.3226319. (Web of Science Indexed, Scopus Indexed)

17. **M. Abu-Faraj**, A. Al-Hyari, B. Al-Ahmad, Z. Alqadi, B. Ali, and A. Alhaj, "Building a Secure Image Cryptography System using Parallel Processing and Complicated Dynamic Length Private Key," *Applied Mathematics & Information Sciences (AMIS)*, vol. 16, no. 6, pp. 1017-1026, 2022, doi:10.18576/amis/160619. (Scopus Indexed)

18. **M. Abu-Faraj**, Z. Alqadi, B. Al-Ahmad, K. Aldebei, and B. Ali,"A Novel Approach to Extract Color Image Features using Image Thinning," *Applied Mathematics & Information Sciences (AMIS)*, vol.16, no. 5, pp. 665-672, 2022, doi:10.18576/amis/160501. (Scopus Indexed)

19. **M. Abu-Faraj**, Z. Alqadi, and M. Zubi, "Creating Color Image Features Based on Morphology Image Processing," *Traitement du Signal*, vol. 39, no. 3, pp. 797-803, 2022, doi:10.18280/ts.390304.

(Web of Science Indexed, Scopus Indexed)

20. **M. Abu-Faraj**, A. Al-Hyari, K. Aldebei, B. Al-Ahmad, and Z. Alqadi, "Rotation Left Digits to Enhance the Security Level of Message Blocks Cryptography," *IEEE Access*, vol. 10, pp. 69388-69397, 2022, doi:10.1109/ACCESS.2022.3187317. (Web of Science Indexed, Scopus Indexed)

21. **M. Abu-Faraj**, A. Al-Hyari, and Z. Alqadi, "Experimental Analysis of Methods Used to Solve Linear Regression Models," *CMC-Computers, Materials & Continua*, vol. 72, no. 3, pp. 5699-5712, 2022, doi:10.32604/cmc.2022.027364. (Web of Science Indexed, Scopus Indexed)

22. **M. Abu-Faraj**, and Z. Alqadi, "Image Encryption using Variable Length Blocks and Variable Length Private Key," *International Journal of Computer Science and Mobile Computing (IJCSMC)*, vol. 11, Iss. 3, pp. 138-151, 2022, doi:10.47760/ijcsmc.2022.v11i03.016.

23. **M. Abu-Faraj**, A. Al-Hyari, and Z. Alqadi, "A Dual Approach for Audio Cryptography," *Journal of Southwest Jiaotong University*, vol. 57, no. 1, pp. 24-33, 2022, doi:10.35741/issn.0258-2724.57.1.3. (Scopus Indexed)

24. **M. Abu-Faraj**, A. Al-Hyari, and Z. Alqadi, "Complex Matrix Private Key to Enhance the Security Level of Image Cryptography," *Symmetry*, vol. 14, Iss. 4, pp. 664-678, 2022, doi:10.3390/sym0664. (Web of Science Indexed, Scopus Indexed)

25. **M. Abu-Faraj**, K. Aldebei, and Z. Alqadi, "Simple, Efficient, Highly Secure, and Multiple Purposed Method on Data Cryptography," *Traitement du Signal*, vol. 39, no. 1, pp. 173-178, 2022, doi:10.18280/ts.390117. (Web of Science Indexed, Scopus Indexed)

26. **M. Abu-Faraj**, Khaled Aldebe, and Z. Alqadi, "Deep Machine Learning to Enhance ANN Performance: Fingerprint Classifier Case Study," *Journal of Southwest Jiaotong University*, vol. 56, no. 6, pp. 685-694, 2021, doi:10.35741/issn.0258-2724.56.6.61. (Scopus Indexed)

27. **M. Abu-Faraj**, Z. Alqadi, and K. Aldebei, "Comparative Analysis of Fingerprint Features Extraction Methods," *Journal of Hunan University Natural Sciences*, vol. 48, iss. 12, pp. 177-182, 2021. (Scopus Indexed)

28. **M. Abu-Faraj**, and Z. Alqadi, "Rounds Reduction and Blocks Controlling to Enhance the Performance of Standard Method of Data Cryptography," *International Journal of Computer Science and Network Security (IJCSNS)*, vol. 21, no. 12, pp. 648-656, 2021, doi: 10.22937/IJCSNS.2021.21.12.89. (Web of Science Indexed)

29. **M. Abu-Faraj**, and Z. Alqadi, "Improving the Efficiency and Scalability of Standard Methods for Data Cryptography," *International Journal of Computer Science and Network Security (IJCSNS)*, vol. 21, no.12, pp. 451-458, 2021, doi:10.22937/IJCSNS.2021.21.12.61. (Web of Science Indexed)

30. **M. Abu-Faraj**, and Z. Alqadi, "Using Highly Secure Data Encryption Method for Text File Cryptography," *International Journal of Computer Science and Network Security (IJCSNS)*, vol. 21, no.12 , pp. 53-60, 2021, doi:10.22937/IJCSNS.2021.21.12.8. (Web of Science Indexed)

31. **M. Abu-Faraj**, and M. Zubi, "Analysis and Implementation of Kidney Stones Detection by Applying Segmentation Techniques on Computerized Tomography Scans," *Italian Journal of Pure and Applied Mathematics*, iss. 43, pp. 590-602, 2020. (Scopus Indexed)

32. **M. Abu-Faraj**, "A Survey on Software Quality Assurance," *Journal of Engineering and Applied Sciences*, vol. 14, iss. 15 , pp. 5111-5122, 2019, doi:10.36478/jeasci.2019.5111.51220. (Scopus Indexed)

33. **M. Abu-Faraj**, K. Al-Sarayreh, and K. Meridji, "A Model Combining Apriori and Posteriori Contexts to Estimate the Costs of a Software Project," *Journal of Engineering and Applied Sciences*, vol. 14, Iss. 11, pp. 3643-3650, 2019, doi:10.36478/jeasci.2019.3643.3650. (Scopus Indexed)

34. N. Ghatasheh, I. Al-taharwa, B. Al-Ahmad, and **M. Abu-Faraj**, "Dead Sea Starvation: Towards Enhanced Monitoring of Water Resources by Modeling Meteorological Variables and Remote Sensing," *Journal of Software Engineering and Applications*, vol. 9, no. 12, pp. 588-600, 2016, doi:10.4236/jsea.2016.912040.

35. H. Faris, N. Ghatasheh, A. Rodan, and **M. Abu-Faraj**, "Predicting Surface Ozone Concentrations Using Support Vector Regression," *Life Science Journal*, vol. 11, no. 6 , pp.126-131, 2014, doi:10.7537/marslsj110614.18. (Web of Science Indexed)

36. S. Alian, N. Ghatasheh, and **M. Abu-Faraj**, "Multi-Agent Swarm Spreading Approach in Unknown Environments," *International Journal of Computer Science Issues (IJCSI)*, vol. 11, iss. 6, no. 2, pp. 160-168, 2014.

37. **M. Abu-Faraj**, N. Ghatasheh, H. Faris, and O. Harfoushi, "Evaluation of Spatial Image Processing Approaches for Calculating Water Surface Area: Case of the Dead Sea," *Life Science Journal*, vol.11, no. 4, pp. 114-121, 2014, doi:10.7537/marslsj110414.15. (Web of Science Indexed)

38. O. Harfoushi, B. Alfawwaz, N. Ghatasheh, R. Obiedat, **M. Abu-Faraj**, and H. Faris,"Data Security Issues and Challenges in Cloud Computing: A Conceptual Analysis and Review," *Communications and Network*, vol. 6, no. 1, pp. 15-21, 2014, doi:10.4236/cn.2014.61003 . (Scopus Indexed)

39. N. Ghatasheh, **M. Abu-Faraj**, and H. Faris,"Dead Sea Water Level and Surface Area Monitoring Using Spatial Data Extraction from Remote Sensing Images," *International Review on Computers and Software (IRECOS)*, vol. 8, no. 12, pp. 2892-2897, 2013.

40. N. Ghatasheh, A. Najdawi, **M. Abu-Faraj**, and H. Faris, "Corporate e-Learning Environment using Concept Maps: A Case Study," *International Review on Computers and Software (IRECOS)*, vol. 8, no. 11, pp. 2655 -2662, 2013.

41. **M. Abu-Faraj**, "Design Considerations of a Large Granule Dynamic Reconfigurable Fabric," *International Journal of Computer and Communications*, vol. 7, iss. 3, pp. 116-123, 2013. (Scopus Indexed)

42. **M. Abu-Faraj**, "Performance Metrics of a Reconfigurable Fabric, Iss *International Journal of Computer Science Issues (IJCSI)*, vol. 10, iss. 6, no. 2, pp. 222-226, 2013. (Scopus Indexed)

43. **M. Abu-Faraj** and N. Ghatasheh, "Using Image Processing Functions to Determine the Edges of the Dead Sea and Calculate the Declining Rate," *International Journal of Computer Science Issues (IJCSI)*, vol.10, iss. 6, no. 2, pp. 97-101, 2013. (Scopus Indexed)

Book Chapters

44. **M. Abu-Faraj**, A. Al-Hyari, and Z. Alqadi, "A Robust Speech Encryption Method Using Segmentation and Chaotic Keys for Enhanced Audio Security," *Proceedings of the Third International Conference on Advances in Computing Research (ACR'25). ACR 25 2025. Lecture Notes in Networks and Systems.* Vol. 1346, K. Daimi , A. Al Sadoon, Eds. Cham: Springer, 2025, pp. 346–357,doi.org/10.1007/978-3-031-87647-9_30.

45. **M. Abu-Faraj**, A. Al-Hyari, and Z. Alqadi, "Secure and efficient color image cryptography using two secret keys," in Innovations in Smart Cities Applications, Vol. 7, M. Ben Ahmed, A. A. Boudhir, R. El Meouche, and I. R. Karas, Eds. Cham: Springer Nature Switzerland, 2024, pp. 549–560, doi:10.1007/9783-031538247_49.

46. **M. Abu-Faraj**, R. Masa'deh, and M. Alshurideh, "E-Government Implementation: A Case Study of Jordanian e-Government Program," in The Effect of Information Technology on Business and Marketing Intelligence Systems, Edition, Vol. 1056, M. Alshurideh, Al B.H. Kurdi, R. Masa'deh, H.M. Alzoubi, S. Salloum, Ed. Switzerland: Springer Cham, 2023, pp. 1355–1368, doi:10.1007/978-3-031-12382-5_74.

Refereed Conference Proceedings

47. A. Al-Hyari, and **M. Abu-Faraj**, "Hyperparameters Optimization of Convolutional Neural Networks using Evolutionary Algorithms," *in proc. 2022 International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA2022)*, Karak, Jordan, 2022, pp. 1-6, doi:10.1109/ETCEA57049.2022.10009778.

48. **M. Abu-Faraj**, and I. Greenshields, "Partition Models for a Shared Dynamically Reconfigurable Fabric," *in proc. ISCA 27th International Conference on Computers and Their Applications (CATA-2012)*, Las Vegas, Nevada, U.S.A., 2012, pp. 202-207.

49. **M. Abu-Faraj**, "A Multi-Core Processors Sharing A Predictive Dynamically Reconfigurable Fabric," *in proc. ISCA 26th International Conference on Computers and Their Applications (CATA-2011)*, New Orleans, Louisiana, U.S.A., 2011, pp. 117-126.

50. **M. Abu-Faraj**, and I. Greenshields, "Architectural Considerations for an Out-Of-Core Dynamically Reconfigurable Fabric," *in proc. ISCA 1st International Conference on Advanced Computing and Communications (ACC-2010)*, Orlando, Florida, U.S.A., 2010, pp. 52-57.

51. **M. Abu-Faraj**, and I. Greenshields, "A Predictive Dynamically Reconfigurable Architecture," *in proc. Of 19th Annual Symposium: Micro and Nano Technologies for Electronics and Photonics*, Storrs, Connecticut, U.S.A., 2010, pp. 226-235.

Publications Reviews

Served as Editorial Board Member for the School of Higher Education Conference at the University of Jordan
Served as Editorial Board Member for Computer Science and Technology: Current Trends.
Served as Editorial Board Member for Engineering Current Trends.
Served as a Reviewer for the following International Journals:

- IEEE Access
- IEEE Micro
- IEEE Transactions on Computers
- PLOS ONE
- Traitement du Signal
- Journal of Supercomputing
- International Journal of Computers and Their Applications (IJCA)
- International Journal of Computer Science Issues (IJCSI)
- International Journal of Computer and Communication
- International Review on Computers and Software (IRECOS)
- Journal of Computer Science
- The International Arab Journal of Information Technology (IAJIT)

Served as Program Committee Member/Reviewer for the following International Conferences:

- The International Jordanian Cybersecurity Conference (IJCC), December 17-18, 2024, Amman, Jordan.
- The International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA 2022), Mutah, Jordan, November 22-23, 2022.
- ISCA 29th International Conference on Computer Applications in Industry and Engineering (CAINE 2016), Denver, USA, U.S.A., September 26-29, 2016.
- ISCA 28th International Conference on Computer Applications in Industry and Engineering (CAINE 2015), San Diego, California, U.S.A., October 12-14, 2015.
- ISCA 27th International Conference on Computer Applications in Industry and Engineering (CAINE-2014), New Orleans, U.S.A., October 13-15, 2014.
- ISCA 3rd International Conference on Advanced Computing and Communications (ACC-2013), Los Angeles, U.S.A., September 25-27, 2013.
- ISCA 26th International Conference on Computer Applications in Industry and Engineering (CAINE-2013), Los Angeles, U.S.A., September 25-27, 2013.
- The 24th IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP-2013), Washington D.C., U.S.A., June 6-8, 2013.
- ISCA 1st International Conference on Advanced Computing and Communications (ACC-2010), Orlando, U.S.A., September 15-17, 2010.

Achievements

- **Secured Funding for establishing a University Computer Laboratory.**
  Successfully obtained $20,000 from a Gadora Tobacoo PSC to establish modern computer research laboratories at the University of Jordan at Aqaba.

External Examinerships

- External M.Sc. Dissertation Examiner, Mutah University.
  Thesis title: Studying Community Detection Problem using Data Mining Techniques.
  Student: Yousif Masood. Date of defense: June 2022.

- External M.Sc. Dissertation Examiner, Mutah University.
  Thesis title: The Effect of Feature Selection on Diabetes Prediction using Data Mining.
  Student: Dhuhai AL-Mashhadany. Date of defense: June 2022.

GRANTS

2010	**Real-Time Ultrasonic Testing of Rail Tracks**
2008	Grant PI: Prof. Reda Ammar, and Prof. Ian Greenshields
	Dapco Industries, Inc.
	Period of Grant: Two Years
	Role on Project: Research Assistant

COURSES TAUGHT

University of Sheffield	DIGITAL LOGIC
	INTRODUCTION TO DIGITAL SIGNAL PROCESSING
	SYSTEM ARCHITECTURE DESIGN (MASTER LEVEL)
	ADVANCED COMPUTER ARCHITECTURES (MASTER LEVEL)
University of Connecticut	DIGITAL LOGIC DESIGN
	INTRODUCTION TO COMPUTER ARCHITECTURE
	COMPUTER ORGANIZATION AND ARCHITECTURE (MASTER LEVEL)
	PROGRAMMING LANGUAGE TRANSLATION (MASTER LEVEL)
The University of Jordan	REMEDIAL COMPUTER SKILLS
	Computer Skills for Humanities Schools
	COMPUTER SKILLS FOR SCIENTIFIC SCHOOLS (C++)
	THE CAMPUS LIFE AND ETHICS
	BASICS OF COMPUTING
	DIGITAL SKILLS
	INTRODUCTION TO PROGRAMMING
	ADVANCED PROGRAMMING
	DIGITAL LOGIC
	FUNDAMENTALS OF INFORMATION TECHNOLOGY
	MANAGEMENT INFORMATION SYSTEMS
	ELECTRONIC BUSINESS (E-BUSINESS)
	ELECTRONIC GOVERNMENT (E-GOVERNMENT)
	INFORMATION RESOURCES MANAGEMENT
	PRINCIPLES OF CLOUD COMPUTING AND SMART NETWORKS
	COMPUTER ETHICS
	SOCIAL MEDIA
	APPLICATIONS OF INFORMATION SYSTEMS
	GEOGRAPHIC INFORMATION SYSTEMS (GIS)
	MULTIMEDIA
	OPERATING SYSTEMS
	COMPUTER NETWORKS
	SOFTWARE ENGINEERING
	COMPUTER ORGANIZATION
	SPECIAL TOPICS
	OPERATING SYSTEMS (MASTER LEVEL)
	TRAINING
	SUPERVISED 18 GRADUATION PROJECTS

VOLUNTEER TRAINING COURSES

- **Wriring Research Papers Using LaTeX.**
  Accreditation and Quality Assurance Center, The University of Jordan.

- **Business Intelligence**.
  Injaz Program.

- **Genome Database: Use and its Applications in Medical Diagnosis and Biological Research**.
  Princess Haya Biotechnology Centre, Jordan University of Science and Technology.

- **Network and Computer Security**.
  Petra Development and Tourism Region Authority.

- **Hardware and System Technology**.
  Petra Development and Tourism Region Authority.
- **Professional Awareness Campaign**.
  Injaz Program.

Technical Workshops

June 2023	Disability as Diversity: The inclusion of Students with Disabilities in Higher Education. Int@ E UG, Leipzig, Germany.
January 2022	Quality Management Systems (ISO 9001). The University of Jordan, Aqaba, Jordan.
October 2021	Blended Learning: Forms and Applications. The University of Jordan, Aqaba, Jordan.
January 2021	Preparing the executive plan at the University of Jordan. The University of Jordan, Aqaba, Jordan.
December 2020	Preparing the strategic plan at the University of Jordan. The University of Jordan, Aqaba, Jordan.
December 2020	National Accreditation Standard. The University of Jordan, Aqaba, Jordan.
March 2018	Moodle Training Course. The University of Jordan, Aqaba, Jordan.
October 2016	36th GITEX Technology Week. Dubai, U.A.E.

Professional Affiliations

- Member of IEEE (Institute of Electrical and Electronics Engineers).
- Member of IEEE Computer Society.
- Member of A.C.M. (Association of Computing Machinery).
- Member of ACM SIGARCH (A.C.M. Special Interest Group on Computer Architecture).
- Member of ISCA (International Society for Computers and their Applications).
- Member of J.E.A. (Jordan Engineers Association).
- Member of the Internet Society.
- Member of JOSA (Jordan Open Source Association).
- Member of J.C.S. (Jordan Computer Society).
- Member of IAENG (International Association of Engineers).

Professional Courses

- Digital Transformation & Big Data
- Management of Development Projects and Programs.
- Managing E-Learning Courses on Moodle Platform.
- Blended Learning: Forms and Applications.
- Plagiarism Detection Workshop.
- Security and Confidentiality of the Data and Information.
- Staff Development Workshops (The University of Jordan).
  - Modern Trends in University Teaching.
  - Exams Preparation and learner's Assessment.

- Academic Ethics.
  - Laws, Bylaws, and Regulations of the University of Jordan.
  - Designing Study Plans.
  - Effective University Teaching Skills.
- Certified Information Systems Security Professional (CISSP)
- Cisco Certified Network Associate (CCNA).
- Microsoft Certified Systems Engineer (MCSE).
- A+ Certification.

AWARDS AND GRANTS

2025 **Erasmus+ International Credit Mobility (ICM) for Teaching Staff**
Department of Computer Science and Engineering
UNIVERSITY OF BOLOGNA, ITALY

2024 **Erasmus+ International Credit Mobility (ICM) for Teaching Staff**
Faculty of Communication Science
UNIVERSITY OF TERAMO, ITALY

2024 **MENA Scholarship Program (M.S.P.) funded by the Netherlands Government**
Digital Transformation and Big Data Analysis
Maastricht School of Management (MSM)
MAASTRICHT UNIVERSITY, NETHERLANDS

2023 **MENA Scholarship Program (M.S.P.) funded by the Netherlands Government**
Management of Development Projects and Programs
M.D.F. for Training and Consultancy for Development
EDE, NETHERLANDS

2023 **Erasmus+ International Credit Mobility (ICM) for Teaching Staff**
Department of Mathematics and Computer Science
Faculty of Mathematics and Computer Science
PHLIPPS-UNIVERSITY OF MARBURG, GERMANY

2021 **Erasmus+ International Credit Mobility (ICM) for Teaching Staff**
Department of Computer Engineering
School of Engineering
ONDOKUZ MAYIS UNIVERSITY, TURKEY

2019 **Erasmus+ International Credit Mobility (ICM) for Teaching Staff**
Department of Computer Engineering
School of Engineering
ATATURK UNIVERSITY, TURKEY

2012
2008 **Predoctoral Scholarship (Full tuition waiver)**
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF ENGINEERING
UNIVERSITY OF CONNECTICUT, U.S.A.

2010 **Best Research Poster Award (CMOS, 2010)**
19th Annual Symposium: Micro & Nano Technologies for Electronics & Photonics
UNIVERSITY OF CONNECTICUT, U.S.A.

2010
2008 **Dapco Research Scholarship**
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SCHOOL OF ENGINEERING
UNIVERSITY OF CONNECTICUT, U.S.A.

2005	**Excellent Graduate Student Scholarship (Half tuition waiver)**
2004	Sheffield Hallam University, U.K.

Computer Proficiency

Operating Systems:	macOS, Linux, Windows
LMS Platforms:	Blackboard, Moodle, Microsoft Teams
Educational & Assessment Tools:	Moodle Quiz, H5P, Google Forms, Testportal
Programming Languages:	C, C++, Julia
Scripting & Markup:	Python, LaTeX, Bash
Hardware Description:	VHDL, Verilog
Parallel Programming:	MPI, OpenMP
Simulation Tools:	MATLAB (with Simulink), Xilinx ISE, ModelSim, SPIM
Networking Tools:	Wireshark, Cisco Packet Tracer, PuTTY, Nmap, iperf, Netcat
Design Tools:	LogicWorks, Logisim
Cloud Platforms:	AWS, Microsoft Azure, Google Cloud, IBM Cloud
Virtualization Tools:	VMware, VirtualBox, Hyper-V, Docker
Embedded Systems:	Intel, Microchip (PIC), Infineon, Arduino, Raspberry Pi
Version Control:	Git, GitHub, Overleaf
Security Tools:	OpenSSL, VeraCrypt, GnuPG

Languages

Arabic:	Mothertongue
English:	(Fluent in speaking, reading, and writing)

References

References are available upon request.

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