Ghassan. G. Kanaan
Professor of Computer Science
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https://orcid.org/0000-0002-9289-3189

Personal Data:

Nationality:	Jordanian
Place of Birth:	Jordan
Marital Status:	Married with four children
Date of Birth:	April 8, 1962

Education:

- Ph.D. Computer Science, Illinois Institute of Technology, Chicago-Illinois (USA) 1998, G.P.A. (3.75/4.0).
- M.Sc. Computer Science, Western Michigan University, Kalamazoo-Michigan (USA) 1992, G.P.A. (3.75/4.0).
- B.Sc. Computer Science, Yarmouk University, Ibid-Jordan, 1985, 72%

Research Interest:

Natural Language Processing, Artificial Intelligence, Data Analytic, Data Science, Human Machine Interaction, Information Retrieval, Data Compression, Encryption, Letter Recognition, Information Extraction, Data Mining, DataWherhousing, Data Retrieval, Big Data.

Administrative Experience:

- 2017/2019   **Vice President and Dean of Aviation Science College,** Amman Arab University, Jordan.
- 2016/ 2017   **Acting President,** Amman Arab University, Jordan.
- 2015/2016   **Vice President,** Amman Arab University, Jordan.
- 2014/2015   **Dean of ITS College,** Amman Arab University, Jordan.
- 2013/2014   D**irector of Accreditation and Quality Assurance department**, Amman Arab University, Jordan.
- 2010/ 2013   **Vice Dean** of IT College, Amman Arab University, Jordan.
- 2007/ 2010   **Head of MIS Dept.** Arab Academy for Banking & Financial Science, Jordan, department, IT College.
- 2005/ 2006   **Head of CIS** department, Amman Al-Ahliyya University, Jordan, IT College.
- 2002/2005   **Head of CIS** department, Yarmouk University, Jordan, IT College.

Academic Experience:

- 2021-Present   Chair Commiteee and Chair Member (Online PhD Program) at Westcliff Universirity, Irvan, California, USA.

- 2011/2019   **Full Professor**, IT College, Amman Arab University, Jordan.
- 2010/2011   **Full Professor,** IT College, University of Petra, Jordan**.**
- 2007/ 2010   **Full Professor**, IT College, Arab Academy for Banking & Financial Sciences, Jordan.
- 2005/ 2006   **Associate Professor**, IT College, Amman Al-Ahliyya University, Jordan.
- 1998-2005   **Assistant Professor**, IT College, Yarmouk University, Jordan.
- 1996/1998   **Instructor**, Robert Morris College, IT College, Chicago, Illinois, USA.
- 1994/1996   **Lab Instructor**, Academic Computing Center, Illinois Institute of Technology, Chicago-Illinois, USA.
- 1992/ 1993   **Teacher Assistant,** IT College, Yarmouk University, Jordan.
- 1991/1992   **Teacher Assistant,** Western Michigan University, Kalamazoo, Michigan, USA.
- 1987/1990   **Teacher Assistant**, IT College, Yarmouk University, Jordan.

Consulting Experiences:

- Provide Artificial Intelligence (AI) training and consultancy services for education.
- Consulting in Artificial Intelligence Projects, Analysis, Business Requirements of Artificial intelligence
- Assessment the maturity of Artificial intelligence in Government
- Methodologies and Talent assessment according the assessment the strengths and gaps analysis, mentorship
- Invention evaluation Criteria and guidelines
- Artificial Intelligence and Marketing consultation
- Consultation in Boost growth, increase profitability, reduce risk, Cut Cost, Create opportunities, Innovation
- Artificial intelligence for business training
- Enterprise Architecture Strategy Consultation
- Enterprise Data Science Strategy Consultation
- Enterprise Data Management Consultation

Graduate Courses Taught

- Natural Language Processing (NLP)
- Artificial intelligence
- Special Topics
- Data Mining and analytics
- Big Data
- Data Science
- Advanced Management Information System
- Advanced Information Security
- Advanced Operating System
- Advanced Data Structure and Algorithms
- E-Commerce
- VLSI Design
- Advanced Computer Network and data communication
- Information Retrieval
- Advanced Computer Graphics
- Advanced Algorithms
- Advanced Operating system

- Operation research
- Database Management Systems
- Design and Analysis of Algorithms
- Advanced Database Security

Undergraduate Courses Taught

- C++ language
- Pascal Language
- File Structure
- Algorithms
- Human Computer Interaction (HCI)
- Database Management System
- Operating System
- Artificial intelligence
- Operation research
- Computer Network and data communication
- Digital logic Design
- Natural Language Processing (NLP)
- Information Security
- Information Retrieval.
- Design Development
- Web Programming
- Mobile Programming
- Data Mining and Data warehousing
- Business Data Communications
- Information Systems
- E-Commerce
- Cloud Computing
- Management Information system
- Computational Theory
- Programming Languages
- Design and Analysis of Algorithms
- Database security

Graduate Thesis Supervised:

1. PhD Thesis title: An Approach for Extracting Arabic Word Root Based on Voice Writing Forms. 2011
2. PhD Thesis title: An Ontology Based Access Control Model for Semantic Web Services. 2010
3. PhD Thesis title: Optimized Methods for Arabic Information Retrieval System. 2010
4. PhD Thesis title: Experiments of Clustering Methods use Combination Algorithms on Arabic Information Retrieval. 2009.
5. PhD Thesis title: Experimenting with Arabic Text Classification Based on Support Vector Machines. 2009.
6. PhD Thesis title: Effectiveness of genetic algorithm (GA) in Arabic information retrieval systems, 2009.
7. PhD Thesis title: Development A Novel Model for Arabic Handwritten Recognition (AHRA), 2008.
8. PhD Thesis title: Automated Arabic Sign Language Recognition Using Neural Network, 2007.
9. PhD Thesis title: Critical success factors for Achieving Performance Excellence Technology Change at Jordan Telecom Group (JTG), 2007.
10. PhD Thesis title: Performance Analysis & Improvement of Data Fusion Algorithms. 2007.

11. PhD Thesis title: Comparison Between Query Expansion Techniques: Local Analysis VS. Global Analysis Using Arabic Text. 2006.
12. More than 20 Master thesis

Google Scholar Citation:

	All
Citation	1694
h-index	24
i10-index	42

Publication:

Book Chapters:
1. Elias Farzali, **Kanaan**, G., Raed Kanaan, Kamal Kamal Atieh. (2011). E-Government in Syria: Obstacles and Interoperability Framework. Handbook of Research on E-Government in Emerging Economies: Adoption, E-Participation, and Legal Frameworks of Kelvin Joseph Bwalya, and Saul Zulu, University of Botswana, Botswana. USA.
2. Ghwanmeh S., **Kanaan** G., Al-Shalabi R., Ababneh A. (2009). An Enhanced Text-Classification-Based Arabic Information Retrieval System. In The Book "Utilizing Information Technology Systems across Disciplines: Advancements in the Application of Computer Science". Idea group Inc. (IGI), USA.
3. Ghwanmeh S., **Kanaan G.**, Al-Shalabi R. (2009). Enhanced Information Retrieval Evaluation between Pseudo relevance Feedback and Query Similarity Relevant documents Methodology Applied on Arabic Text. In The Book "Utilizing Information Technology Systems across Disciplines: Advancements in the Application of Computer Science". Idea group Inc. (IGI), USA.

Journal Papers:
1. Hmeidi, I., **Kanaan**, G., and Evens, M., (1997). Design and implementation of automatic indexing for information retrieval to Arabic documents. J. Am. Soc. Inf. Sci. (JASIS), 48, 10, 867-88110.
2. **Kanaan, G**., (1979). Comparing automatic statistical and syntactic phrase indexing for Arabic information retrieval. Illinois Institute of Technology, USA.
3. Al-Shalabi, R., **Kanaan,** G., and Maghayreh, E. (2003). Bottom-Up Chart Parser for Arabic Sentences. International Journal of Applied Science & Computations. 10(2):100-109.
4. **Kanaan**, G., Al-Shalabi, R., Al-Zamil, M., and Saifan, A., (2004). Comparison between Ad- hoc Retrieval and Filtering Retrieval using Arabic Documents. International Journal of Computer Processing of Oriental Languages. 17(3): 1-19.
5. Al-Shalabi, F. Riyad and **Kanaan**, G., (2004). Constructing an Automatic Lexicon for Arabic Language. International Journal of Computing and Information Sciences - (IJCIS). 2(2):114-128.
6. Al-Kabi, M., **Kanaan**, G., Al-Shalabi, R., Nahar, K., and Bani-Ismail, B., (2005). Statistical Classifier of the Holy Quran Verses (Fatiha and Yaseen Chapters). Journal of Applied Sciences. 5(3): 580-583.
7. Ghwanmeh S., **Kanaan** G., Al-Shalabi R., Kan'an T. and Al-Azzam O., (2005). Mining Text in the Arabic Language Keywords Distribution, Abhath Al-Yarmouk Journal: Basis Sci. & Eng., 14(2): 339-355.
8. Ghwanmeh S., **Kanaan** G., Al-Shalabi R., Gharaibeh J. and Samara S., (2005). Comparison between Inverted and Signature Files based on Arabic Documents, International Journal of Applied Science and Computations, 12(3): 174-193.

9. Ghwanmeh S., **Kanaan** G., Al-Shalabi R. and Alsrehin N., (2005). Automatic Query Expansion for Arabic Text Retrieval System Based on an Association Clustering Thesaurus, Information Technology Journal. 4(4): 476-483.

10. Al-Shalabi, R., **Kanaan**, G., Abu-Alrub, M., Nahar, K., and Al-Modallal, M., (2005). N-Gram: a Method of Conflating Terms, an Approach to Text Categorization and Question Answering Systems in the Arabic Language. International Journal of Applied Science & Computations, Vol.12, No.2, pp.113-127.

11. **Kanaan**, G., Al-Shalabi, R., Abu-Alrub, M., and Rawashdeh, M., (2005). Relevance Feedback: Experimenting with a Simple Arabic Information Retrieval System with Evaluation. International Journal of Applied Science & Computations. 12(2).

12. **Kanaan**, G., Al-Shalabi, R., and Al-Kabi, M., (2005). The New Approach for Extracting Quadrilateral Arabic Roots. Abhath Al-Yarmouk, Basic Science and Engineering. Vol 14(1): 51-66.

13. **Kanaan**, G., Al-Shalabi, R., and Sawalha, M., (2005). Improving Arabic Information Retrieval Systems Using Part of Speech Tagging. Information Technology Journal. 4(1): 32-37.

14. Al-Shalabi, R., **Kanaan**, G., Hilat, I., Ababneh, A., and Al-Zubi, A., (2005). Experiments with the Successor Variety Algorithm Using the Cutoff and Entropy Methods. Information Technology Journal. 4(1): 55-62.

15. Al-Kabi, M., **Kanaan**, G., Al-Shalabi, R., Al-Sinjilawi, S., and Al-Mustafa, R., (2005). Al-Hadith Text Classifier. Journal of Applied Sciences. 5(3): 584-587.

16. Masoud, A. M., Fawaz, Abu Shaar, Said, Murad, Ayman, **Kanaan,** G., G.., (2006). Enhanced Route Re-Construction Method for Associativity Based Routing Protocol for Mobile Ad hoc Networks (MANET). Journal of Computer Science, 12(2): 859-871.

17. Ghwanmeh S., Al-Shalabi R., **Kanaan** G., and Alnemi L., (2006). Enhanced Neural Networks Model Based on a Single Layer Linear Counter propagation for Prediction and Function Approximation, Information Technology Journal, 5(1): 45-50.

18. Ghwanmeh S., Al-Shalabi R. And **Kanaan** G., (2006). "Efficient Data Compression Scheme using Dynamic Huffman Code Applied on Arabic Language", American Journal of Applied Sciences, 3(12): 887-890.

19. Abu Shaar, Said, Masoud, A. M., Fawaz, Murad, Ayman, Al-Shalabi, Riyad, **Kanaan**, G., (2007). Analysis of Enhanced Associativity Based Routing Protocol. Journal of Computer Science, 12(2): 853-858.

20. Bilal M. Zahran, Kanaan G., (2008). Text Feature Selection using Particle Swarm Optimization Algorithm. Accepted for publication in Journal World Applied Sciences Journal, 3 (1): 000-000, ISSN 1818-4952.

21. Abdelwadood Moh'd A. Mesleh, Kanaan, G., (2008). Arabic Text Categorization System- Using Ant Colony Optimization-Based Feature Selection. ICSOFT (PL/DPS/KE), 384-387.

22. Hadi W., Thabtah F., Mousa S. Al Hawari S., **Kanaan** G., Ababneh J., (2008). A Comprehensive Comparative Study using the Vector Space Model with K-Nearest Neighbour on Text Categorization Data. Asian Journal of Information Management 2(1): pp. 14-22.

23. Ghwanmeh S., Al-Shalabi R. And **Kanaan** G., (2008). Enhanced Data Security Scheme using Key Position Algorithm Applied on Arabic Language. Abhath Al-Yarmouk Journal: Basis Sci. & Eng., 17(1B): 165-176.

24. **Kanaan** G., Al-Shalabi R., and Ghwanmeh S., (2008). Interactive and Automatic Query Expansion: a Comparative Study with an Application of Arabic. American Journal of Applied Sciences, 5(11): 1433-1436.

25. Mohammed Al-Kabi, **Kanaan**, G., Riyad Al-Shalabi, Noor Zaghal, Zaher Salah, Maen Hammad. (2009). Stem-Based Query Expansion for Arabic Corpus. Abhath Al-Yarmouk Journal: Basis Sci. & Eng., vol. 18, No. 2, 2009, pp. 227-246.

26. **Kanaan** G., Riyad Al-Shalabi, Sameh H. Ghwanmeh, Hamda Al-Ma'adeed, (2009). A comparison of text-classification techniques applied to Arabic text. JASIST 60(9): 1836-1844.

27. Mohammad, T. Khdour, **Kanaan**, G., R. Kanaan and S. Bani-Ahmad. (2011). Analysis of Existing Access Control Models from Web Services Applications' Perspective. Journal of computing, Volume 3, Issue 3.

28. A. Mohammad, **Kanaan** G., T. Khdour, S. Bani-Ahmad, (2011). Ontology-Based Access Control Model for Semantic Web Services, ISSN 1746-7659, England, UK Journal of Information and Computing Science Vol. 6, No. 3, pp. 177-194.

29. Mohammad, **Kanaan**, G., R. Kanaan, T. Khdour, S. Bani-Ahmad, A. Alarabeyyat, (2011). Toward Access Control Model for Web Services Applications. International Journal of Research and Reviews in Computer Science Vol. 2, No. 2.

30. **Kanaan** G., Abdelrazzak hussin, Ahmed abdelkader abusini. (2011). Arabic Text Classification Based on Voice Writing Forms, presented to ACM Journal of Data and Information Quality with JDIQ-2011-01--0001.

31. Mohamad Ababneh, Riyad Al-Shalabi, Kanaan, G., Alaa Al-Nobani, (2012). Building an effective rule-based light stemmer for Arabic language to improve search effectiveness**.** Int. Arab J. Inf. Technol. 9(4): 368-372.

32. Basel Bani-Ismail, Kanaan, G., (2012). Comparing Different Sparse Matrix Storage Structures as Index Structure for Arabic Text Collection**.** IJIRR 2(2): 52-67.

33. Jaffar Atwan, Masnizah Mohd, **Kanaan**, G., (2013). Enhanced Arabic Information Retrieval: Light Stemming and Stop Words. Journal of Communications in Computer and Information Science. Volume 378, pp. 219-228.

34. Mohammed Otair, **Kanaan**, G., Raed Kanaan, (2013). Optimizing an Arabic Query using Comprehensive Query Expansion Techniques. International Journal of Computer Applications 0975 – 8887, Volume 71– No.17.

35. Fadi A. O. Najadat, **Kanaan**, G. ,Raed K. Kanaan, Omar S. Aldabbas, Riyad F. Al-Shalabi, (2014). Genetic Algorithm Solution of the Knapsack Problem Used in Finding Full Issues in the Holy Quran Based on the Number (19). Computer and Information Science 6(2): 18-30.

36. J Atwan, M Mohd, **Kanaan**, G., Q Bsoul. (2014). Impact of stemmer on Arabic text retrieval, Asia Information Retrieval Symposium, 314-326.

37. Ghazi Raho, Riyad Al-Shalabi, **Kanaan**, G., Asma'a Nassar. (2015). Different Classification Algorithms Based on Arabic Text Classification: Feature Selection Comparative Study. International Journal of Advanced Computer Science and Applications, Vol. 6, No. 2, (IJACSA).

38. Jaffar Atwan, Masnizah Mohd, Hasan Rashaideh and **Kanaan**, G., (2016). Semantically enhanced pseudo relevance feedback for Arabic information retrieval. Journal of Information Science 42(2): 246-260.

39. K Alsmearat, M Al-Ayyoub, R Al-Shalabi, **Kanaan**, G., (2017). Anuthor gender identification from Arabic text, Journal of Information Security and Applications 35, 85-95.

40. R Al-Shalabi, **Kanaan**, G., H Al-Sarhan, a Drabsh, I Al-Husban. (2017). Evaluating Machine Translations from Arabic into English and Vice Versa, International Research Journal of Electronics & Computer Engineering (ISSN Online: 2412-4370)

41. A Nuseir, M Al-Ayyoub, M Al-Kabi, **Kanaan**, G., R Al-Shalabi. (2017). Improved Hierarchical Classifiers for Multi-Way Sentiment Analysis, International Arab Journal of Information Technology (IAJIT) 14.

42. Aldabbas, **Kanaan**, G., M Albdarnah, R Alshalabi, MA Shehab, (2016). Technique of Regular Expression for Arabic Light Stemmer, International Journal of Advanced Studies in Computers, Science.

43. T Kanan, R Kanaan, O Al-Dabbas, **Kanaan**, G., A Al-Dahoud, E Fox. (2016). Extracting Named Entities Using Named Entity Recognizer for Arabic News Articles, International Journal of Advanced Studies in Computer Science and Engineering (IJASCSE), Volume 5, Issue 11.

44. A Alzoubi, T Kanan, **Kanaan**, G., R. Alshalabi. Routing Protocols in Large Scale Wireless Sensor Networks-A Survey, (2016). International Journal of Advanced Studies in Computer Science and Engineering (IJASCSE), volume 5 issue 11.

45. M Al-Ayyoub, A Nuseir, **Kanaan**, G., R., Al-Shalabi, (2016). Hierarchical classifiers for multi-way sentiment analysis of Arabic reviews, International Journal of Advanced Computer Science and Applications, Vol. 7, No. 2.

46. **Kanaan**, G., J., Atwan, M Mohd, H Rashaideh, (2016). Semantically enhanced pseudo relevance feedback for Arabic information retrieval, Information Science Journal, 42 (2), 246-260.

47. Aldabbas, R Al-Shalabi, **Kanaan**, G., MA., Shehabd, Motasim Albdarnah. (2016). Arabic Light Stemmer Based on Regular Expression, Arabic Light Stemmer Based on Regular Expression Technique, International Computer Sciences and Informatics Conference (ICSIC 2016).

48. K Alsmearat, M Shehab, M Al-Ayyoub, R Al-Shalabi, **Kanaan**, G., (2015). Emotion analysis of Arabic articles and its impact on identifying the author's gender. In ACS/IEEE AICCSA.

49. T Kanan, S Ayoub, E Saif, **Kanaan**, G., P Chandrasekarar, EA Fox. (2016). Extracting named entities using named entity recognizer and generating topics using latent Dirichlet allocation algorithm for Arabic news articles. Proceedings of the International Computer Sciences and Informatics Conference (ICSIC).

50. G. Raho, **Kanaan**, G., R Al-Shalabi. Different Classification Algorithms Based on Arabic Text Classification, (2015). Feature Selection Comparative Study, International Journal of Advanced Computer Science & Applications, (IJACSA), 1 (6), 192-195.

51. Zubi, A., Kanan, T Kanaan, G., Alshalabi, R. Routing Protocols IN Large Scale Wireless Sensor Networks – A Survey, International Journal of Advanced Studies in Computer Science and Engineering IJASCSE VOL., 5. Issue, 11, 2016.

52. Alia Albdoor, Kanaan, G., (2017). Analysis of MPLS and IP Networks Performance to Improve the QOS Using OPNET Simulator. Journal of Emerging Trends in Computing and Information Sciences ©2009-2017 CIS Journal. Vol. 8 No. 1, ISSN 2079-8407.

53. Ayat Amin Al-Jarrah, Ghassan Kanaan & Mustafa Abdel-Kareeem Ababneh (2019). Retrieving Arabic Textual Documents Based on Queries Written in Bahraini Slang Language. Modern Applied Science Journal; Vol. 13, No. 6; 2019, ISSN 1913-1844, E-ISSN 1913-1852.

54. Mustafa Abdel-Kareem Ababneh, Ghassan Kanaan, Ayat Amin Al-Jarrah, (2019). Enhanced Arabic Information Retrieval by Using Arabic Slang Language. Modern Applied Science Journal; Vol. 13, No. 6; 2019, ISSN 1913-1844, E-ISSN 1913-1852.

55. Riyad Al–Shalabi, Ghassan Kanaan, Tarek Kanan, Mohammed ElBes. A Review Study for Arabic Machine Learning and Deep Learning Methods. 2022 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETSIS).

56. Tarek Kanan, Ghassan G. Kanaan, Riyad Al-Shalabi, Amal Aldaaja, (2021). Offensive Language Detection in Social Networks for Arabic Language Using Clustering Techniques. International Journal of Advances in Software Computing and its Applications.Vol. 13, No. 2, 2021.

الشلبي، رياض و كنعان، غسان و الجراح، أحمد. (2003). نظام حاسوبي لتحليل بحور الشعر العربي ومعرفتها. أبحاث اليرموك "سلسلة العلوم الأساسية والهندسية". 12(2): 37-60.

Conference Papers:

1. **Kanaan**, G., an Improved Algorithm for the Extraction Trilateral Arabic Roots. (2002). Proceeding of the International Arab Conference on Information Technology, ACIT 2002, Doha, Qatar.

2. Al-Shalabi, R., **Kanaan**, G., and Alqrainy, S., (2003). An Automatic System for Extracting Nouns from a Vowelized Arabic Text. Proceeding of the International Arab Conference on Information Technology. Alexandria, Egypt.

3. Al-Shalabi, R., **Kanaan**, G., and Muaidi, H., (2003). The New Approach for Extracting Arabic Roots. Proceeding of the International Arab Conference on Information Technology. 2003, pp .59-42 Alexandria, Egypt.

4. **Kanaan**, G., Al-Shalabi, R., and Sawalha, M., (2003). Full Automatic Arabic Text Tagging system. Proceedings of the International Conference on Information Technology and Natural Science. pp .258-267, Amman, Jordan.

5. Al-Shalabi, R., **Kanaan**, G., Al-Jaam, J., Hasnah, A., and Helat, E., (2004). Stop-Word Removal Algorithm for Arabic Language. Proceedings of the 1st International Conference on Information & Communication Technologies: from theory to Applications-ICTTA'04. Damascus, Syria.

6. Ghwanmeh S., Al-Shalabi R., **Kanaan** G., Khanfar K. And Rabab'ah S., (2005). An Algorithm for extracting the Root of Arabic Words. Proceedings of the 5th International Business Information Management Conference (IBIMA). Cairo, Egypt.

7. Al-Shalabi R., **Kanaan** G., Jahjah L. , (2005). Question Answering Arabic System based on Passage Selection. Proceedings of the 5th International Business Information Management Conference (IBIMA). Cairo, Egypt.

8. **Kanaan**, G. G. And Wedyan, O., (2005). Constructing an Automatic Thesaurus to Enhance Arabic Information Retrieval System. The 2nd Jordanian International Conference on Computer Science and Engineering, JICCSE 2006, Salt, Jordan. 89-97.

9. **Kanaan**, G. Riyad, Al-Shalabi, Abd-Allah Al-Akhras., (2006). KNN Arabic Text Categorization Using IG Feature Selection, The 4th International Multiconference on Computer and Information Technology, CSIT 2006, Amman, Jordan.

10. Riyad Al-Shalabi, Kanaan, G., and Manaf H. Gharaibeh, (2006). Arabic Text Categorization Using KNN Algorithm, The 4th International Multiconference on Computer and Information Technology, CSIT 2006, Amman, Jordan.

11. Al-Shalabi R., **Kanaan** G., Ghwanmeh S., and Nour, F., (2007). Stemmer Algorithm for Arabic Words Based on Excessive Letter Locations. Proceedings of the 4th International Conference on Innovations in Information Technology. Nov 18-20. Dubi, United Arab Emirates.

12. **Kanaan** G., Al-Shalabi R., Ghwanmeh S., and Bani-Ismail, B., (2007). A Comparison between Interactive and Automatic Query Expansion Applied on Arabic Language. Proceedings of the 4th International Conference on Innovations in Information Technology. Dubi, United Arab Emirates.

13. Ghwanmeh S., **Kanaan** G., Al-Shalabi R., and Ababneh A., (2007). Enhanced Arabic Information Retrieval System based on Arabic Text Classification. Proceedings of the 4th International Conference on Innovations in Information Technology. Dubi, United Arab Emirates.

14. Al-Yaseen, M., **Kanaan**, G., Al-Shalabi R., Kanaan T. And Bsoul A. (2007). Applying Partition around Medoids like Clustering Algorithm for Enhancing Retrieval Processes in Arabic Text using different Similarity Measures. Proceedings of the Information and Communication Technologies International Symposium ICTIS'07. Fez-Morocco.

15. **Kanaan**, G., Al-Shalabi R., Bsoul A., and Kanaan T., (2007). Arabic-English Cross-Language Information Retrieval using Latent Semantic Indexing with Singular-Value Matrix Decomposition. Proceedings of the Information and Communication Technologies International Symposium ICTIS'07. Fez-Morocco.

16. Mesleh, A.M. **Kanaan**, G., (2008). Support vector machine text classification system: Using Ant Colony Optimization based feature subset selection, Computer Engineering & Systems, ICCES 2008. International Conference. Cairo, 143-148.

17. Al-Shalabi R., **Kanaan** G., Al-Sarayreh B., Al-Gonmein A., Talhoni H., and Al-Azazmeh S., Proper Noun Extracting Algorithm for Arabic language. International Journal of the Computer, the Internet and Management Vol. 19. No.1 (January-April, 2011) pp 45 -53.

18. Mohammad Othman Nassar, **Kanaan, G**., (2009). The Factors Affecting the Performance of Data Fusion Algorithms. International Conference on Information Management and Engineering - ICIME.

19. Sameh H. Ghwanmeh, **Kanaan, G.,** Riyad Al-Shalabi, Saif Rabab'ah., (2009). Enhanced Algorithm for Extracting the Root of Arabic Words. Computer Graphics, Imaging and Visualization. CGIV '09. Sixth International Conference. Page: 388 – 391, Tianjin, ISBN: 978-0-7695-3789-4.

20. Mohammad Othman Nassar, **Kanaan, G**., Hussain A. H Awad. (2010). Framework for analysis and improvement of data-fusion algorithms. International Conference on Information Management and Engineering - ICIME.

21. **Kanaan G**., Abdelrazzak alhasan, Ahmed abdelqader Abusini, (2010). The role of Arabic voice writing in computerized translation, Proceedings of the 7th Scientific Conference of the Faculty of Arts at the University of Zarqa, Jordan.

22. Hayel Khafajeh, Nidal Yousef, **Kanaan, G**., (2010). Automatic Query expansion for Arabic text retrieval based on association and similarity thesaurus. European, Mediterranean & Middle Eastern Conference on Information Systems (EMCIS), Abu Dhabi, UAE.

23. Jaffar Atwan, Masnizah Mohd, **Kanaan, G.**, Qusay Walid Bsoul: (2014). Impact of Stemmer on Arabic Text Retrieval. Springer Publishing Switzerland. AIRS 2014: 314-326.

24. T Kanan, A AbedAlghafer, **Ghassan, G. Kanaan**, R AlShalabi, M Elbes, S AlZubi. (2021). Arabic Text Categorization: A Comparison Survey. 2021 International Conference on Information Technology (ICIT), 739-742.

25. Tarek Kanaan, Amani A., Shadi, A., Bilal H., Ala, M., Kanaan, G., M., M., Kamruzaman. An Intelligent Health Care System for Detecting Drug Abuse in Social Media Plattforms Based on low Resource Language. Accepted in IEEE/ACM Transactions on Audio, Speech, and Language Processing. 2023.

Published Books:

[1] الكراسنة، عبد الفتاح، و كنعان، غسان و الشلبي، رياض و حرز الله، نائل. (2003). نظم المعلومات الإدارية. 175 ص.

[2] الشلبي، رياض و كنعان، غسان و الرواش، محمد و سعيفان، أحمد. (2005). تطبيقات في الحاسوب والإحصاء. 300 ص.

Honors:

- A full scholarship from Yarmouk University to obtain a Ph. D. degree in Computer Science from Illinois Institute of Technology.
- A scholarship from Western Michigan University to obtain a Master degree in Computer Science.
- Epsilon Pi Epsilon (Honor Society in the Computing Science), Michigan, USA.

Computer Languages:

C, C++, COBOL, Pascal, FORTRAN, Assembly, SQL, Informix-4GL, Oracle, HTML, Java Script.

Key Skills:

- Data Visualization
- Predictive Analysis
- Statistical Modeling
- Training and Monitoring
- Cluster and Classification
- Data Analysis, Data Mining and Data Warehousing
- Machine learning Algorithms.

Seminars and Workshops:

- Pace HLI Programming in COBOL (25 hours)
- INFORMIX-4GL Development language
- Introduction to ORACLE (24 hours)
- Introduction to PACE on VS.

- VAX rdb/VMS Programming
- Database Design and SQL
- CISCO (CCNA certified) semester one and two
- ICDL certified
- Basic Web Technology Skills for Courseware Development. University of Jordan. 8-12 Oct. 2000.

Training Courses in Computer Science (Artificial Intelligence)

- Introduction to Artificial Intelligence
- Artificial Intelligence Principles and Practices
- Machine Learning for Business Professionals
- Advanced Machine Learning Specialization
- Launching into Machine Learning
- Big Data and IoT

Projects Design:

- Designed and Implemented a Distributed Database System using Pascal embedded with SQL. Sep. 1991 - Dec. 1991, (WMU / USA).
- Designed Registration system using Oracle embedded COBOL language, Yarmouk University.
- Design financial system, Yarmouk University.
- Design and implemented a distributed database system using SQL embedded with Pascal language, Yarmouk University, Jordan.

University Committees:

- Board of Trustees, Jordan University, Amman, Jordan. 2018-2022.
  - عضو مجلس أمناء الجامعة الاردنية / عمان - الاردن
- Board of Trustees, Applied Science Private University, Amman, Jordan, 2017-2018.
  - عضو مجلس أمناء جامعة العلوم التطبيقية / عمان - الاردن
- Board of Trustees, Amman Arab University, Jordan, 2016-2017.
  - عضو مجلس أمناء جامعة عمان العربية / عمان - الاردن

College Committees:

1. Member of the Dean Council /Amman Arab University
2. Member of the University Council /Amman Arab University
3. Head of the Faculty of IT Council/ The Arab Academy For Banking & Financial Science.
4. Head of the Faculty of IT Council Member of the Yarmouk University Council
5. Member of the Faculty of IT Council, Yarmouk University, Jordan.
6. Member of Curriculum Committee, Yarmouk University, Arab Academy for Banking & Financial Sciences and Amman Arab University, Jordan.
7. Member of Faculty Student Affairs Committee, Yarmouk University, Arab Academy For Banking & Financial Sciences and Amman Arab University, Jordan
8. Member of the Faculty Development and Planning Committee, Yarmouk University, Arab Academy For Banking & Financial Sciences and Amman Arab University, Jordan.
9. Representative of Computer Information Systems Dept., College of Science Council, YU.
10. Member of the Scientific Committee, Yarmouk University, Jordan.
11. Member of Library and Computer Committee, Yarmouk University, Jordan.
12. Member of the Study Schedule Committee, Yarmouk University, Jordan.
13. Member of the Budget Committee, Yarmouk University, Jordan.
14. Member of the Graduate Studies Committee, Yarmouk University, Jordan.
15. Member of the Students Investigation Committee, Yarmouk University, Jordan.

Department Committees:

1. Chairman of the Post Graduate Committee, YU and Amman Arab University.
2. Member of Comprehensive Exam Committee for Master and PhD. Students, Arab Academy for Banking & Financial Sciences and Amman Arab University,
3. Member of the Library and Computer Committee, Yarmouk University, Arab Academy For Banking & Financial Sciences and Amman Arab University.
4. Member of the Development and Planning Committee, Yarmouk University, Arab Academy For Banking & Financial Sciences and Amman Arab University,.
5. Member of Curriculum Committee, Yarmouk University, Arab Academy for Banking & Financial Sciences and Amman Arab University,
6. Member of the Schedule Study Committee.

Languages:

Arabic: Native
English: excellent reading, writing and speaking.

Grants:

- **EU, Mediterranean Network for Unified distance Learning, (Med Net'U), €250,000, Italy.**
- **ICDL Project, International Bank Funded, $500,000**

National & International Committees:

1. Member of the Editorial Board of the International Journal of Advanced Science and Engineering Technology (IJASET)
2. Technical Committee in the International Conference on Information Technology 2013 ICIT, Amman, Jordan.
3. Member of Program Committee in the first of the international conference on cloud computing, Sumaya University for Technology, Amman, Jordan, 2013.
4. Member of the Scientific Committee in the 1st International Conference & Exhibition on the applications of Information Technology in Developing Renewable Energy Processes and Systems, IT-DREPS 2013, Amman, Jordan.
5. Associate Editors-in-Chief in the International Arab Journal of Information Technology, IAJIT, Zarka, Jordan, 2014.
6. The 30th Annual International ACM SIGIR Conference, 23-27 July 2007, Amsterdam, Members of workshop program committees.
7. Program Committee of the Themed Track on Natural Language Processing and Understanding (NLP&U'08) within the 2008 IEEE International Conference on Computer Engineering & Systems (ICCES'08).
8. Member of Advisory Board of Business Intelligence and Agile Methodologies for Knowledge-Based.
9. General Chair of the International Computer Sciences and Informatics Conference ICSIC2016, Amman, Jordan.
10. Member of Non-Jordanian universities that are recognized by the Ministry of higher Education (outside Jordan)
11. Higher Education Accreditation Commission Referees and Reviewers.
12. Several committees for accreditations of Jordanian private universities

Consulting Experiences:

- Provide Artificial Intelligence (AI) training and consultancy services for education.

- Consulting in Artificial Intelligence Projects, Data Analysis, Business Requirements of Artificial intelligence
- Assessment the maturity of Artificial intelligence in Government
- Methodologies and Talent assessment according the assessment the strengths and gaps analysis, mentorship
- Invention evaluation Criteria and guidelines
- Artificial Intelligence and Marketing consultation
- Consultation in Boost growth, increase profitability, reduce risk, Cut Cost, Create opportunities, Innovation
- Artificial intelligence for business training
- Enterprise Architecture Strategy Consultation
- Enterprise Data Strategy Consultation
- Enterprise Data Management Consultation

- **References: Up on request**