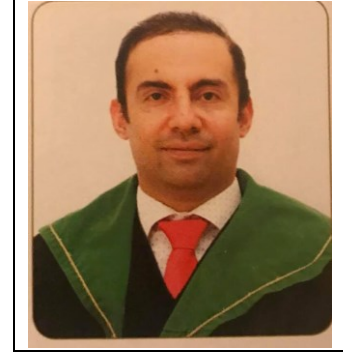


CURRICULUM VITAE

Bilal Hani Hawashin

*Department of Artificial Intelligence /Faculty of Science
and Information Technology,
Alzaytoonah University of Jordan, Amman, Jordan
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Google Scholar: Belal Hawashin*



1. Personal Data

Date of Birth: 01-06-1980
Nationality: Jordanian

2. Education

- Ph.D. (Computer Science) 2011, Wayne State University, Detroit, MI, USA
- M.Sc. (Computer Science) 2003, New York Institute of Technology, Old Westbury, NY, USA
- B.Sc. (Computer Science) 2002, University of Jordan, Amman, Jordan.

3. Ph.D. Dissertation

Title: “A New Semantic Similarity Join Method Using Diffusion Maps and Long String Join Attributes” , Wayne State University, Detroit, MI, USA.

4. Employment

Academic Positions

- Associate Professor, Department Artificial Intelligence, Alzaytoonah University of Jordan, Amman, Jordan.
Sep 15, 2021 - Present
- Associate Professor, Department of Computer Science – A.I. Branch, Alzaytoonah University of Jordan, Amman, Jordan.



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February 15, 2021 – Sep 15, 2021.

- Associate Professor, Department of Computer Information Systems, Alzaytoonah University of Jordan, Amman, Jordan.
July 30, 2019 – February 15, 2021.
- Assistant Professor, Department of Computer Information Systems, Alzaytoonah University of Jordan, Amman, Jordan.
February 02, 2012 – July 30, 2019.
- Full Time Instructor, Department of Computer Information Systems, Jordan University of Science and Technology, Irbid, Jordan.
Dec 15, 2003 – Aug 15, 2007

Administrative Positions

- Chair of the Department of Artificial Intelligence , Al-Zaytoonah University of Jordan. September 21, 2022 – Present.
- Editor – **Expert Systems Journal of Knowledge Engineering** (Wiley).
Impact Factor: 2.587 (July 2021 – Present)
- Editor – **International Journal of Advances in Soft Computing and Its Applications**. Scopus. (September 2021 – Present)
- Track Chair- **ICIT 2023** – Data Science and Artificial Intelligence Track – 2023.
- Track Chair- **ICIT 2021** – Data Science Track – 2021.
- Track Chair – **JEEIT 2018** – Data Science Track – 2021.
- Publons: Bilal Hawashin

5. Research Interests

Data Science, Artificial Intelligence, Data Mining, Data Bases, Natural Language Processing, Machine Learning, Recommender Systems, Information Retrieval.

6. Membership in Scientific Societies and Associations

Wiley Editor Community (Sep. 2022 – Present)

7. Honors and Awards

Golden Key Chapter of 2011 – Wayne State University. 2011.
Tau Beta Pi - 10 Years Eminent Engineer. 2022.

8. Fellowships and Scholarships

- Scholarship from Jordan University of Science and Technology covering the Master program. 2002-2003.
- Scholarship from Alzaytoonah University of Jordan covering the PhD program in Wayne State University. 2007-2011.

9. Teaching Experience

- *Graduate Courses*



Advanced Databases. Graduate Seminar.

- ***Undergraduate Courses***

Database2, Database1, Data Mining, Information Retrieval, Artificial Neural Networks, Deep Learning, Database Programming (ORACLE), Operating Systems, E-Commerce, Data Structures, C++.

10. **Supervision of Graduate Research**

Madhi Ahmad Ali, Thesis Title: “Improved Feature-Based Automatic Text Summarization System”, 2016.

Maha Naser Abu-Naser, Thesis Title: “A Novel Efficient Automated Bug Assignment Approach Using Machine Learning”, 2020.

Alaa Abdulnabi, Thesis Title: “An Improved Recommender System for Requirement Engineering Using an Efficient Semantical Method Integrated with a Novel Unified Requirement Writing Style”, 2021.

Reem Amro, Thesis Title: “Automated Classification of User Requirements written in Arabic using machine learning algorithms”, 2023.

Bayan Alsawarea, Thesis Title: “ Detecting Ambiguities in Requirement Documents Written in Arabic Using Machine Learning Algorithms”, 2023.

11. **Grants**

1. A Novel Approach to Extract Illegal Contents from Arabic Social Media Posts Using Machine Learning Techniques. 21,000 USD. Funded by Alzaytoonah University of Jordan
2. Smart Campus - The smart use of energy using IOT. Funded by Alzaytoonah University of Jordan.
3. An Intelligent Course Recommender System for Undergraduate Students Based on Learning Hidden Student Aptitudes. Funded by Alzaytoonah University of Jordan.

12. **Patents**

N/A



13. Membership of Committees

- **University**
 - *Quality Assurance Committee. 9/2013-6/2017 , 9/2018-present.*
 - *Course Plans Committee. 9/2017-present.*
 - *Exams and Evaluation Committee. 9/2018-6/2019.*

14. Professional and Scientific Meetings

Scientific Meetings Organized

Information Technology Colloquium 2014.

Participation in Scientific meetings

- World Congress on Engineering and Computer Science, San Francisco, USA, 2015.
- World Congress on Engineering and Computer Science, San Francisco, USA, 2016.
- International Conference on Data Science, E-Learning, and Information Systems, Madrid, 2018.
- Train the trainers workshop – Oracle, Oracle offices, Amman, Jordan, 2017.
- Exams Building and Analysis, Alzaytoonah University of Jordan, Amman, Jordan, 2017.

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

N/A

16. Publications

1. Hmeidi I., **Hawashin B.**, and El-Qawasmeh E., "*Performance of KNN and SVM Classifiers on Full Word Arabic Articles*," Advanced Engineering Informatics, 22(1), 2008, pages 106-111.
2. **Hawashin B.**, Fotouhi F., and Grosky W., "*Diffusion Maps: A Superior Semantic Method to Improve Similarity Join Performance*," In Proc. of IEEE ICDM MMIS Workshop, 2010, pages 9-16.
3. **Hawashin B.**, Fotouhi F., and Truta T.M., "*A Privacy Preserving Efficient Protocol for Semantic Similarity Join Using Long String Attributes*", In Proc. of ACM EDBT/ICDT PAIS Workshop, 2011.
4. **Hawashin B.**, Fotouhi F., Truta T.M., and Grosky W., "*Efficient Privacy Preserving Protocols for Similarity Join*", Transactions on Data Privacy, 5(1): 2011, pages 297-331.
5. **Hawashin B.**, Fotouhi F., Grosky W., "*Efficient Similarity Join Method Using Unsupervised Learning*", International Journal of Computer Science and Information Technology (IJCSIT), 4(5) 2012, pages 23 - 41.



6. **Hawashin B.**, Mansour A., Aljawarneh S., "*An Efficient Feature Selection Method for Arabic Text Categorization*", International Journal of Computer Applications, 83(17), 2013, pages 1-6.
7. Mansour A., Obaidat M., **Hawashin B.**, "*Elderly People Health Monitoring System using Fuzzy Rule Based Approach*", International Journal of Advanced Computer Research, 4(17), 2014, pages 904-914.
8. **Hawashin B.**, Abusukhon A., Mansour A., "*An Efficient User Interest Extractor for Recommender Systems*", International Conference on Machine Learning and Data Analysis, San Francisco, USA, 2015.
9. Abusukhon A. and **Hawashin B.**, "*A Secure Network Communication Protocol Based on Text to Barcode Encryption Algorithm*", International Journal of Advanced Computer Science and Applications, 6(12), 2015.
10. Ali M., Al-Dahoud A., and **Hawashin B.**, "*Enhanced Feature-Based Automatic Text Summarization System Using Supervised Technique*", International Journal of Computers and Technology, 15(5), 2016, pages 6757-6767.
11. **Hawashin B.** and Mansour A., "*An Efficient Agent Based System to Extract Interests of User Groups*", International Conference on Machine Learning and Data Analysis, San Francisco, USA, 2016.
12. Mansour A., **Hawashin B.**, and Mansour M., "*Cooperative Learning Mechanism in Intelligent Multi-Agent System*", International Conference on Electrical, Computer, and System Engineering, Paris, France, 2016.
13. Haffar N., Maraoui M., Aljawarneh S., Bouhorma M., Alnuaimi A.A., **Hawashin B.**, "*Pedagogical Indexed Arabic Text in Cloud E-Learning System*" IJCAC 7(1): 32-46 ,2017.
14. Raddad A., Al-Zu'bi S., Kanan T., **Hawashin B.**, Al Ayoub M., and Hmeidi I.. "*Automatic categorization of Arabic articles based on their political orientation.*" Digital Investigation, 25, 2018, pages 24-41.
15. Aqel D., and **Hawashin B.** "*Arabic Relative Clauses Parsing Based on Inductive Logic Programming.*" Recent Patents on Computer Science 11(2), 2018, pages 121-133.
16. **Hawashin B.**, Mansour A., Kanan T., and Fotouhi F. "*An efficient cold start solution based on group interests for recommender systems.*" In Proceedings of the First International Conference on Data Science, E-learning and Information Systems, Madrid, Spain, 2018.
17. Alzubi S., **Hawashin B.**, and Elbes M. "*A Novel Recommender System Based on Apriori Algorithm for Requirements Engineering*". In Proceedings of The 5th International Conference on Social Networks Analysis, Management, and Security. Valencia, Spain, 2018.
18. **Hawashin B.**, Aqel D., Alzubi S., Elbes M., "*Improving Recommender Systems Using Co-Appearing and Semantically Correlated User Interests*". Recent Patents on Computer Science. Accepted in Jan. 2019.
19. Elbes M., Alzubi S., Kanan T., Al-Fuqaha, and **Hawashin B.** "A survey on particle swarm optimization with emphasis on engineering and network applications." *Evolutionary Intelligence*, pp.1-17. 2019.



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20. AlZu'bi S., **Hawashin B.**, Mujahed M., Jararweh Y. and Gupta B.B. "An efficient employment of internet of multimedia things in smart and future agriculture." *Multimedia Tools and Applications*, pp.1-25. 2019.
21. **Hawashin B.**, Alzubi S., Kanan T., and Alzubi S. "An Efficient Semantic Recommender Method for Arabic Text", *The Electronic Library*, Accepted Mar. 2019.
22. **Hawashin B.**, Aqel D., AlZu'bi S. and Jararweh Y., 2019, June. Novel Weighted Interest Similarity Measurement for Recommender Systems Using Rating Timestamp. In *2019 Sixth International Conference on Software Defined Systems (SDS)* (pp. 166-170). IEEE.
23. AlZu'bi, S., Alsmadiv, A., AlQatawneh, S., Al-Ayyoub, M., **Hawashin, B.** and Jararweh, Y., 2019, October. A Brief Analysis of Amazon Online Reviews. In *2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS)* (pp. 555-560). IEEE.
24. Alzu'bi, S., Badarneh, O., **Hawashin, B.**, Al-Ayyoub, M., Alhindawi, N. and Jararweh, Y., 2019, October. Multi-Label Emotion Classification for Arabic Tweets. In *2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS)* (pp. 499-504). IEEE.
25. Mughaid, A., Obeidat, I., **Hawashin, B.**, AlZu'bi, S. and Aqel, D., 2019, October. A smart Geo-Location Job Recommender System Based on Social Media Posts. In *2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS)* (pp. 505-510). IEEE.
26. Muhairat, M., ALZu'bi, S., **Hawashin, B.**, Elbes, M. and Al-Ayyoub, M., 2020. An Intelligent Recommender System Based on Association Rule Analysis for Requirement Engineering. *Journal of Universal Computer Science*, 26(1), pp.33-49.
27. Alzubi, S., **Hawashin, B.**, Mughaid, A. and Jararweh, Y., 2020, April. Whats Trending? An Efficient Trending Research Topics Extractor and Recommender. In *2020 11th International Conference on Information and Communication Systems (ICICS)* (pp. 191-196). IEEE.
28. Lafi, M., **Hawashin, B.** and AlZu'bi, S., 2020, April. Maintenance Requests Labeling Using Machine Learning Classification. In *2020 Seventh International Conference on Software Defined Systems (SDS)* (pp. 245-249). IEEE.
29. **Hawashin, B.**, Alzubi, S., Mughaid, A., Fotouhi, F. and Abusukhon, A., 2020, April. An Efficient Cold Start Solution for Recommender Systems Based on Machine Learning and User Interests. In *2020 Seventh International Conference on Software Defined Systems (SDS)* (pp. 220-225). IEEE.
30. Al-Zu'bi, S., **Hawashin, B.**, Mughaid, A. and Baker, T., 2020. Efficient 3D medical image segmentation algorithm over a secured multimedia network. *Multimedia Tools and Applications*, pp.1-19.
31. Kanan, T., Aldaaja, A. and **Hawashin, B.**, 2020. Cyber-Bullying and Cyber-Harassment Detection Using Supervised Machine Learning Techniques in Arabic Social Media Contents. *Journal of Internet Technology*, 21(5), pp.1409-1421.
32. **Hawashin B.**, Lafi M., Kanan T. and Mansour A., 2020. An efficient hybrid similarity measure based on user interests for recommender systems. *Expert Systems*, 37(5), p.e12471.

33. Abusukhon, A., **Hawashin, B.** and Lafi, M., 2021. An Efficient System for Reducing the Power Consumption in Offices Using the Internet of Things. *Int. J. Advance Soft Compu. Appl*, 13(1).
34. **Hawashin, B.**, Mansour M., Fotouhi F., Al'Zubi S., Kanan T., 2021, "A Novel Recommender System Using Interest Extracting Agents and User Feedback", ICIT2021, Accepted.
35. Kanan, T., Rathi W., **Hawashin B.**, 2021, "A Comparison Between Machine Learning Researches That Use Arabic Text: A Case Study of Social Media Datasets", ICIT2021, Accepted.
36. Kanan, T., **Hawashin, B.**, Alzubi, S., Almaita, E., Alkhatib, A., Maria, K.A. and Elbes, M., 2022. Improving arabic text classification using p-stemmer. *Recent Advances in Computer Science and Communications (Formerly: Recent Patents on Computer Science)*, 15(3), pp.404-411.
37. **Hawashin, B.** and Abusukhon A., 2022, "An Efficient Course Recommender Using Deep-Enriched Hidden Student Aptitudes", ICIC Letters. Accepted.
38. AlZu'bi, S., Abu Zitar, R., **Hawashin, B.**, Abu Shanab, S., Zraiqat, A., Mughaid, A., Almotairi, K.H. and Abualigah, L., 2022. A novel deep learning technique for detecting emotional impact in online education. *Electronics*, 11(18), p.2964.
39. Mansour, A.M., Obeidat, M.A. and **Hawashin, B.**, 2023. A novel multi agent recommender system for user interests extraction. *Cluster Computing*, 26(2), pp.1353-1362.
40. Al-Zu'bi, S., Badarneh, O., **Hawashin, B.**, Al-Ayyoub, M., Alhindawi, N. and Alsmearat, K., 2023, June. Multi-Label Classification of Emotions in Arabic Tweets From Different Perspectives. In *2023 International Conference on Multimedia Computing, Networking and Applications (MCNA)* (pp. 33-41). IEEE.
41. Kanan, T., AbedAlghafer, A., AlZu'bi, S., **Hawashin, B.**, Mughaid, A., Kanaan, G. and Kamruzzaman, M.M., 2023. An Intelligent Health Care System for Detecting Drug Abuse in Social Media Platforms Based on Low Resource Language. *IEEE/ACM Transactions on Audio, Speech, and Language Processing*.
42. **Hawashin, B.**, Althunibat, A., Kanan, T., AlZu'bi, S. and Sharrab, Y., 2023, August. Improving arabic fake news detection using optimized feature selection. In *2023 International Conference on Information Technology (ICIT)* (pp. 690-694). IEEE.
43. Alsawareah, B., Althunibat, A. and **Hawashin, B.**, 2023, August. Classification of Arabic Software Requirements Using Machine Learning Techniques. In *2023 International Conference on Information Technology (ICIT)* (pp. 631-636). IEEE.
44. Amro, R., Althunibat, A. and **Hawashin, B.**, 2023, August. Arabic Non-Functional Requirements Extraction Using Machine Learning. In *2023 International Conference on Information Technology (ICIT)* (pp. 489-494). IEEE.
45. Amro, R., Althunibat, A. and **Hawashin, B.**, 2023, August. Arabic User Requirements Classification Using Machine Learning. In *2023 International Conference on Information Technology (ICIT)* (pp. 483-488). IEEE.