

RESUME

PERSONAL INFORMATION

Name: Mohammed A. M. Maree
Nationality: Palestinian
D.O.B: 29-07-1983
Marital Status: Married
Address: Jenin, Palestine
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Email 1: mohammed.maree@aaup.edu | **Email 2:** mohammedmaree@gmail.com
Webpage: <https://www.aaup.edu/mohammed.maree>

EDUCATION

Monash University, Sunway Campus, Kuala Lumpur, Malaysia
Ph.D. in Information Technology **2008-2012**
Title: "Semantically-enhanced Information Retrieval Model based on Multiple Merged and Dynamically Enriched Ontologies"
e-thesis:
https://bridges.monash.edu/articles/Semantically-enhanced_information_retrieval_model_based_on_multiple_merged_and_dynamically_enriched_ontologies/4664065

Maastricht School of Management, Maastricht, Holland
Post Graduate Diploma in Managerial Control and MIS **2006-2006**

The Arab American University, Jenin, Palestine
Bachelor in Computer Science **2001-2005**

EMPLOYMENT

The Arab American University, Palestine **01/03/2014 – Current**
<http://www.aaup.edu/>
The Arab American University, Palestine is the first private university in Palestine. It serves the educational needs inside and outside Palestine and offers excellent educational opportunities for students in various educational fields.

Academic Rank: Associate Professor of Information Technology

Positions & Responsibilities:

Dean, Faculty of Information Technology. **01/08/2023 – Current**
Chairperson, Department of Multimedia Technology. **01/09/2023 – Current**
Coordinator, Artificial Intelligence and Robotics Program. **01/09/2024 – Current**

Assistant to Vice President for Academic Affairs & Full Time Lecturer, Information Technology Department. **01/08/2021 – 31/07/2023**

Chairperson & Full Time Lecturer, Information Technology Department. **01/08/2019 – 01/08/2021**
Full-time Lecturer at the Faculty of Engineering and Information Technology / Information Technology Department **01/08/2018 – 01/08/2019**

Chairperson & Full Time Lecturer, Information Technology Department. **01/09/2016 – 01/08/2018**
Chairperson, & Full Time Lecturer Computer Science and MSc in CS Programs. **01/09/2016 – 19/04/2017**
Chairperson, & Full Time Lecturer Multimedia Technology Department. **01/09/2014 – 01/09/2016**
Full Time Lecturer at the Faculty of Engineering and Information Technology /Multimedia Technology Department **01/03/2014 – 01/09/2014**

Part-time Lecturer at the Faculty of Engineering and Information Technology /Multimedia Technology Department **01/09/2013 – 01/03/2014**

Leaders Organization, Ramallah, Palestine **June. 2018 – Sep. 2019**
<http://www.leaders.ps/>
Leaders organization supports developing entrepreneurship programs in Palestine. The organization offers a wide range of projects that are funded by a network of donor and beneficiary partners allowing to support economic development, sustainability, as well as the building of effective advocacy for many marginalized groups in Palestine.

Position & Responsibility: Consultant – Partner University Coordinator/Trainer for the Palestinian Startups Support Project (PASS) funded by the Korean International Cooperation Agency (KOICA)

SocialDice, Ramallah, Palestine**Mar. 2015 – Jul. 2015**<https://socialdice.net>

SocialDice offers online hiring solutions that are built to reinvent the hiring experience to a more hassle-free and artistic journey. The company employs sophisticated Natural Language Processing and Machine Learning algorithms to replace the conventional tedious process of hiring to an amusing, well-organized, and efficient procedure.

Position & Responsibility:

Providing consultancy services in the field of online recruitment, namely:

- NLP Processing
 - Semantics-based Information Processing
 - Feature Extraction and Categorization
 - Matching and Ranking / Recommendation Algorithms
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Palestine Technical University, Tulkarm, Palestine**Feb. 2014 – July. 2014**<http://www.ptuk.edu.ps/>

Palestine Technical University is the first governmental technical university in the west bank, Palestine. The university grants the Bachelor Degree in Electrical Engineering, Physical Education, Technological Education, Industrial Automation and Computerized Banking & Financial Sciences.

Position & Responsibility:

Assistant Professor - Part-time Lecturer at the Faculty of Science and Arts / Applied Computing Department

Main Roles:

Teaching the following courses:

- Introduction to Multimedia
 - Systems Analysis & Design
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Dimensions Consulting Company, Ramallah, Palestine**Dec. 2012 – Feb. 2014**<http://dimensions-consulting.ps/>

Dimensions Consulting is one of Palestine's most respected specialized management consulting companies that was established in 2007 by a group of experienced, professional, and highly-reputed consultants and business leaders with the vision of providing exceptional consulting and training services. The company offers a wide range of products, processes and services to support the business needs of companies and organizations.

Position & Responsibility:

Director of Research and Quality Assurance

Main Roles:

- Managing Consultancy Programs
 - Developing and Designing Quality Metrics and Standards
 - Conducting Research Activities related to Dimensions' I.T Projects such Dimension's Healthcare Information System and CRM System
 - Developing I.T and Business Projects' Proposals and Plans
 - Managing the Report Writing, M&E, and Quality Assurance team
 - Managing connections between Dimensions and its clients
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Monash University- Sunway Campus, Kuala Lumpur, Malaysia**2008 – 2010**<http://monash.edu.my/>**Position & Responsibility:**

Teaching Assistant

Ministry of Higher Education, Jenin, Palestine**2005 – 2007****Position & Responsibility:**

Teaching at Selat Al-Hartheia Secondary Boys School

Member of the I.T. Course Study Committee

ACADEMIC AWARDS

- Palestinian Islamic Bank Award for Scientific Research 2023
Research Excellence Award – “Teaching, Learning and Commerce in the Age of Technology and Artificial Intelligence” – 2nd Place
(\$1000)
Supervised Ph.D. Project: Article: *“A hybrid deep learning and visualization framework for pushing behavior detection in pedestrian dynamics”*
- Palestinian Islamic Bank Award for Scientific Research 2022
Research Excellence Award – Postgraduate Research Studies at National Level – 2nd Place
(\$800)
Supervised Master Project entitled: “AN IOT BASED MONITORING AND CONTROLLING SYSTEM FOR WATER CHLORINATION TREATMENT”
- Zuhair Hijjawi Award for Excellence in Scientific Research 2019
Supervised Bachelor Project entitled: “Kermalik”. (\$666)
- Palestine Polytechnic University and Palestinian Islamic Bank Award for Scientific Research 2018
Research Excellence Award – Postgraduate Research Studies at National Level – 2nd Place
(\$2000)
Supervised Master Project entitled: “A HYBRID APPROACH TO CONCEPTUAL CLUSTERING AND RANKING OF APPLICANT RESUMES TO THEIR CORRESPONDING JOB POSTINGS”
- The Arab American University, Palestine 2018
Internal Research Fund Award - Cycle 2017/2018. (JD 7000)
Research Project: “Towards A Precision-Oriented Multi-Lingual Semantics-Based Cultural Heritage Recommender System”
- Palestine Polytechnic University and Palestinian Islamic Bank Award for Scientific Research 2016
Research Excellence Award – Postgraduate Research Studies at National Level – 3rd Place
(\$1000)
Supervised Master Project entitled: “Semantics-Based Online Recruitment System”
- Erasmus+ - Capacity Building Programme - Field of Higher Education 2016
A project leaded by An-Najah National University in collaboration with Birzeit University, Islamic University in Gaza, The Arab American University, and Palestine Polytechnic University.
(EUR 879,340)
Project Title: UniGov (Improving Governance Practices at Palestinian Higher Education Institutions).
- The Arab American University, Palestine 2015
Internal Research Fund Award - Cycle 2 2014/2015. (JD 2500)
Research Project: Multiple Ontology-based Ad Serving – From Content to Context Advertising
- Monash University, Sunway Campus, Kuala Lumpur, Malaysia 2011
Best Higher Degree by Research (HDR) Award. (MYR 1000)
Paper: “Mohammed Maree and Mohammed Belkhatir.: A Coupled Statistical/Semantic Framework for Merging Heterogeneous Domain-Specific Ontologies. In Proceedings of the 22nd International Conference on Tools with Artificial Intelligence (ICTAI’10), Arras, France, pp. 159-166, (2010).
- Monash University, Sunway Campus, Kuala Lumpur, Malaysia 2009
Sessional Teaching Essentials Program (STEP) Award
- Monash University, Sunway Campus, Kuala Lumpur, Malaysia 2008
A scholarship for a Ph.D. position in Information Technology
Ph.D. Title: “Semantically-enhanced Information Retrieval Model based on Multiple Merged and Dynamically Enriched Ontologies”
- Maastricht School of Management, Maastricht, Holland 2006
A scholarship for Post Graduate Diploma in Managerial Control and MIS

RESEARCH INTERESTS

- Information Indexing and Retrieval
- Knowledge-based Information Representation and Management
- Data Mining & Artificial Intelligence
- Query Processing and Reformulation in the Context of Medical Information Retrieval
- Health Information Systems – Developing Knowledge-based Diagnostic Systems
- Automatic Ontology Construction and Merging
- Natural Language Processing and Large Language Models
- Adaptation techniques of Multimedia Learning Resources inside 3D virtual Learning Environments
- Semantics-based Online Recruitment
- Internet of Things (IoT) and Smart Management Systems
- Machine Learning in the Context of Pedestrian Dynamics Analysis and Prediction
- Neural Networks and Deep Learning Models
- Semantics-based Contextual Advertising

PUBLICATIONS

Journal Articles:

1. **Mohammed Maree**: "Quantifying Relational Exploration in Cultural Heritage Knowledge Graphs with LLMs: A Neuro-Symbolic Approach for Enhanced Knowledge Discovery". *Data*, Volume 10, Issue: 4, pages 1-19, (2025), **Impact Factor = 2.4. SCOPUS, SJR 0.503, Q2, Cite Score = 4.3.**
<https://doi.org/10.3390/data10040052>
2. Hussam Alawneh, Ahmad Hasasneh, and **Mohammed Maree**: "On the Utilization of Emoji Encoding and Data Preprocessing with a Combined CNN-LSTM Framework for Arabic Sentiment Analysis". *Modelling*, Volume 5, Issue: 4, pages 1469-1489, (2024), **Impact Factor = 1.3. SCOPUS, SJR 0.317, Q1, Cite Score = 2.7.**
<https://doi.org/10.3390/modelling5040076>
3. **Mohammed Maree** and Wala'a Shehada: "Optimizing Curriculum Vitae Concordance: A Comparative Examination of Classical Machine Learning Algorithms and Large Language Model Architectures". *AI (Switzerland)*, Volume 5, Issue: 3, pages 1377-1390, (2024), **Impact Factor = 3.1. SCOPUS, SJR 0.759, Q2, Cite Score = 7.2.**
<https://doi.org/10.3390/ai5030066>
4. Ahmed Alia, **Mohammed Maree**, Mohcine Chraibi, Armin Seyfried: "A novel Voronoi-based convolutional neural network framework for pushing person detection in crowd videos". *Complex & Intelligent Systems*, Volume 10, pages 5005–5031, (2024), **Impact Factor = 5.8. SCOPUS, SJR 1.138, Q1, H-index 46.**
<https://doi.org/10.1007/s40747-024-01422-2>
5. **Mohammed Maree**, Mujahed Eleyat, and Enas Mesqali: "Optimizing Machine Learning-based Sentiment Analysis Accuracy in Bilingual Sentences via Preprocessing Techniques". *International Arab Journal of Information Technology*, Volume 21, Issue: 2, pages 257-270, (2024), **Impact Factor = 1.2. SCOPUS, SJR 0.312, Q2, H-index 32.**
<https://doi.org/10.34028/21/2/8>
6. **Mohammed Maree**, Tareq Zanoon, Alia Dababat, and Mais Awwad: "Constructing a Hybrid Activation and Parameter-Fusion based CNN Medical Image Classifier". *International Journal of Information Technology*, Volume 16, pages 3265–3272, (2024), **SCOPUS, SJR 0.442, Q1, H-index 23.**
<https://doi.org/10.1007/s41870-024-01798-x>
7. **Mohammed Maree**, Mujahed Eleyat and Shatha Rabaia: "An Empirical Evaluation of Adapting Hybrid Parameters for CNN-based Sentiment Analysis". *Pertanika Journal of Science and Technology*, (2024), **Impact Factor = 0.6, SCOPUS, SJR 0.189, Q3, H-index 22.**
<https://doi.org/10.47836/pjst.32.3.05>
8. **Mohammed Maree**, Rabee Al-Qasem, and Banan Tantour: "Transforming Legal Text Interactions: Leveraging Natural Language Processing and Large Language Models for Legal Support in Palestinian Cooperatives". *International Journal of Information Technology*, Volume 16, pages 551–558, (2024), **SCOPUS, SJR 0.442, Q1, H-index 23.**
<https://doi.org/10.1007/s41870-023-01584-1>
9. Ahmad Alia, **Mohammed Maree**, Mohcine Chraibi, Anas Toma, and Armin Seyfried: "A Cloud-based Deep Learning Framework for Early Detection of Pushing at Crowded Event Entrances". *IEEE Access*, Volume: 11, Issue: 2023, pp. 45936-45949 (2023). **Impact Factor = 3.476, SCOPUS, SJR 0.927, Q1, H-index 204.**
<https://doi.org/10.1109/ACCESS.2023.3273770>

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10. **Mohammed Maree**, Mujahed Eleyat, Shatha Rabaia, Mohammed Belkhatir.: "A Hybrid Composite Features based Sentence Level Sentiment Analyzer". IAES International Journal of Artificial Intelligence (IJ-AI), Volume: 12, Issue: 1, pp. 284-294, **(2023). SCOPUS, SJR 0.35, Q2, H-index 11.**
<http://doi.org/10.11591/ijai.v12.i1.pp284-294>
 11. Rudina Subaih, **Mohammed Maree**, Antoine Tordeux, Mohcine Chraibi.: "Questioning the Anisotropy of Pedestrian Dynamics: An Empirical Analysis with Artificial Neural Networks". Applied Sciences, Volume: 12, Issue: 15, pp. 1-13 **(2022). Impact Factor = 2.838, SCOPUS, SJR 0.51, Q2, H-index 75.**
<https://doi.org/10.3390/app12157563>
 12. Ahmad Alia, **Mohammed Maree** and Mohcine Chraibi.: "A Hybrid Deep Learning and Visualization Framework for Pushing Behavior Detection in Pedestrian Dynamics". Sensors, Volume: 22, Issue: 11, pp. 1-25 **(2022). Impact Factor = 3.576, SCOPUS, SJR 0.8, Q1, H-index 196.**
<https://doi.org/10.3390/s22114040>
 13. Saadat M. Alhashmi, **Mohammed Maree**, Zaina Saadeddin.: "Using Latent Dirichlet Allocation and Text Mining Techniques for Understanding Medical Literature". International Journal of Computing, Vol. 20, issue 4, **(2021). SCOPUS, SJR 0.31, Q2, H-index 14.**
<https://doi.org/10.47839/ijc.20.4.2437>
 14. Khalid Rabayah, **Mohammed Maree** and Saadat M. Alhashmi.: "Cultural Factors that Influence the Adoption of E-commerce: A Palestinian Case Study". Information Development Journal, Volume: 38, Issue: 4, pp. 623-640, **(2021). Impact Factor = 2.079, SCOPUS, SJR 0.55 Q1, H-index 22.**
<https://doi.org/10.1177/02666669211006887>
 15. Ahmad Alia, **Mohammed Maree** and Mohcine Chraibi.: "On the Exploitation of GPS-based Data for Real-time Visualization of Pedestrian Dynamics in Open Environments". Behaviour & Information Technology Journal, Volume: 41, Issue: 8, pp. 1709-1723, **(2021). Impact Factor = 3.156, SCOPUS, SJR 0.70 Q1, H-index 81.**
<https://doi.org/10.1080/0144929X.2021.1896781>
 16. **Mohammed Maree**, Amjad Rattout, Muhanad Altawil and Mohammed Belkhatir.: "Multi-modality Search and Recommendation on Palestinian Cultural Heritage based on the Holy-Land Ontology and Extrinsic Semantic Resources". ACM Journal on Computing and Cultural Heritage (JOCCH), Volume: 14, Issue: 3, pp. 1-23, **(2021). Impact Factor = 1.727, SCOPUS, SJR 0.59 Q1, H-index 21.**
<https://doi.org/10.1145/3447523>
 17. Ahmad Ewais, Rami Hodrob, **Mohammad Maree**, Sirien Jaradat.: "Mobile Learning Application for Helping Pupils in Learning Chemistry". International Journal of Interactive Mobile Technologies, Volume: 15, Issue: 1, pp. 105-118, **(2021). SCOPUS, SJR 0.31 Q3, H-index 12.**
<https://doi.org/10.3991/ijim.v15i01.11897>
 18. **Mohammed Maree**: "Semantics-based Key Concepts Identification for Documents Indexing and Retrieval on the Web". International Journal of Innovative Computing and Applications, Volume: 12, Issue: 1, pp. 1-12, **(2021). SCOPUS, SJR 0.21 Q3, H-index 13.**
<https://dx.doi.org/10.1504/IJICA.2021.113608>
 19. **Mohammed Maree** and Mujahed Elyat.: "Semantic Graph based Term Expansion for Sentence-Level Sentiment Analysis". International Journal of Computing, Vol. 19 No. 4 **(2020). SCOPUS, SJR 0.31, Q2, H-index 14.**
<https://www.computingonline.net/computing/article/view/2000>
 20. **Mohammed Maree**, Rami Hodrob, Mohammed Belkhatir and Saadat M. Alhashmi.: "A Knowledge-based Model for Semantic Oriented Contextual Advertising". KSII Transactions on Internet and Information Systems Journal, Volume: 14, Issue: 5 **(2020)**, pp. 2122-2140. **Impact Factor = 0.711, SCOPUS, SJR 0.19, Q3, H-index 20.**
<https://doi.org/10.3837/tiis.2020.05.014>
 21. **Mohammed Maree**.: "Multimedia Context Interpretation: A Semantics-based Cooperative Indexing Approach". Accepted for publication in New Review of Hypermedia and Multimedia Journal, **(2020), Impact Factor = 0.867, Scopus - Q1, H-index = 28, SJR = 0.46.**
<https://doi.org/10.1080/13614568.2020.1745904>

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22. **Mohammed Maree**, Israa Noor, Khaled Rabayah, Mohammed Belkhatir, and Saadat M Alhashmi.: "Head Concepts Selection for Verbose Medical Queries Expansion". IEEE Access Journal, Volume: 8, Issue: April (2020), pp. 93987 - 93999. **Impact Factor = 4.098, SCOPUS, SJR 0.61, Q1, H-index 56.**
<https://doi.org/10.1109/ACCESS.2020.2987568>
 23. Rudina Subaih, **Mohammed Maree**, Mohcine Chraibi, Sami Awad, Tareq Zanoon.: "Experimental Investigation on the Alleged Gender-differences in Pedestrian Dynamics: A Study Reveals No Gender Differences in Pedestrian Movement Behavior". IEEE Access Journal, Volume: 8, Issue: Feb (2020), pp. 33748 - 33757. **Impact Factor = 4.098, SCOPUS, SJR 0.61, Q1, H-index 56.**
<https://doi.org/10.1109/ACCESS.2020.2973917>
 24. **Mohammed Maree**, Aseel Kmail, Mohammed Belkhatir.: "Analysis and shortcomings of e-recruitment systems: Towards a semantics-based approach addressing knowledge incompleteness and limited domain coverage". Journal of Information Science: Volume: 45, Issue: 6, (2018), pp. 713-735. **Impact Factor = 1.939, SCOPUS, SJR 0.64 Q1, H-index 57.**
<https://doi.org/10.1177/0165551518811449>.
 25. **Mohammed Maree**, Isra Noor, Khalid Rabayah.: "Experimental Evaluation of Query Reformulation Techniques in the Context of Medical Information Retrieval". Journal of Theoretical and Applied Information Technology. Volume: 96, Issue: 24, (2018), pp. 8434-8444. **SCOPUS, SJR 0.17 Q3, H-index 25,**
<http://www.jatit.org/volumes/Vol96No24/27Vol96No24.pdf>
 26. **Mohammed Maree** and Mohammed Belkhatir.: "Addressing Semantic Heterogeneity through Multiple Knowledge base Assisted Merging of Domain-specific Ontologies". In Knowledge-based Systems (KBS) journal, Volume: 73, Issue: Jan (2015), pp. 199-211. **Impact Factor: 5.101, 5-Year Impact Factor: 5.358. SCOPUS, SJR 1.46 Q1, H-index 94.**
<https://doi.org/10.1016/j.knosys.2014.10.001>
 27. **Mohammed Maree** and Mohammed Belkhatir.: "Coupling semantic and statistical techniques for dynamically enriching web ontologies". Journal of Intelligent Information Systems (JIIS), Volume: 40, Issue:3 (2013), pp. 455-478. **Impact Factor: 1.589, 5-Year Impact Factor: 1.667. SCOPUS, SJR 0.42 Q2, H-index 49.**
<https://doi.org/10.1007/s10844-012-0233-4>.
 28. **Mohammed Maree**, Saadat M. Alhashmi and Mohammed Belkhatir.: "Towards Improving Meta-Search through Exploiting an Integrated Search Model". In Journal of Information and Knowledge Management (JIKM) Volume: 10, Issue: 4 (2011), pp. 379-391. **SCOPUS, SJR 0.19 Q3, H-index 17,**
<https://doi.org/10.1142/S0219649211003073>
 29. **Mohammed Maree** and Mohammed Belkhatir.: "On the Merging of Domain-Specific Heterogeneous Ontologies using WordNet and Web Pattern-Based Queries". In Journal of Information and Knowledge Management (JIKM) Volume: 10, Issue: 1 (2011), pp. 23-36. **SCOPUS, SJR 0.19 Q3, H-index 17,**
<https://doi.org/10.1142/S0219649211002808>

Conference Papers:

1. Kefaya Sabaneh, Momen Abu Salameh, Fatima Khaleel, Mohammad M. Herzallah, Joman Y. Natsheh, and **Mohammed Maree**.: "Early Risk Prediction of Depression Based on Social Media Posts in Arabic". Proceedings of the IEEE 35th International Conference on Tools with Artificial Intelligence (ICTAI), pp 595-602, Atlanta, GA, USA (2023).
<http://dx.doi.org/10.1109/ICTAI59109.2023.00094>
2. Ahmaed Alia, **Mohammed Maree**, Mohcine Chraibi.: "A Novel Voronoi-based Convolutional Neural Network Approach for Crowd Video Analysis and Pushing Person Detection". Proceedings of the Helmholtz AI Conference, Abstract #38 | Oral and Poster presentation, pp 1-2. Hamburg, Germany, (2023).
<http://dx.doi.org/10.34734/FZJ-2023-02439>
3. Ahmaed Alia, **Mohammed Maree**, Mohcine Chraibi.: "A Fast Hybrid Deep Neural Network Model for pushing behavior detection in human crowds". Proceedings of the IEEE/ACS 19th International Conference on Computer Systems and Applications (AICCSA), pp 1-2. Abu Dhabi, United Arab Emirates, (2022).
<https://doi.org/10.1109/AICCSA56895.2022.10017883>

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4. Rudina Subaih, **Mohammed Maree**, Mohcine Chraïbi, Sami Awad, Tareq Zanoon.: "Gender-based Insights into the Fundamental Diagram of Pedestrian Dynamics". Proceedings of the 11th International Conference on Computational Collective Intelligence, pp 613-624. published by Springer LNCS/LNAI, Hendaye, France, (2019).
https://doi.org/10.1007/978-3-030-28377-3_51
 5. Rami Hodrob, Ahmed Ewais, **Mohammed Maree**. "On Developing a Framework for Knowledge-Based Learning Indicator System in the Context of Learning Analytics". In: Czarnowski I., Howlett R., Jain L. (eds) Intelligent Decision Technologies 2019. Smart Innovation, Systems and Technologies, vol 142. Springer, Singapore. (2019).
https://doi.org/10.1007/978-981-13-8311-3_3
 6. Nael Zidan, **Mohammed Maree**, Subhi Samhan.: "An IoT Based Monitoring and Controlling System for Water Chlorination Treatment". Proceedings of the 2nd International Conference on Future Networks and Distributed Systems. ACM, May, (2018).
<https://doi.org/10.1145/3231053.3231084>
 7. Ihab Nasra and **Mohammed Maree**.: "On the Use of Arabic Stemmers to Increase the Recall of Information Retrieval Systems". Proceedings of the 13th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2017). Guilin, China, pp 2462-2468, (2017).
<https://doi.org/10.1109/FSKD.2017.8393161>
 8. Abeer Zaroor, **Mohammed Maree**, Muath Sabha.: "JRC: A Job Post and Resume Classification System for Online Recruitment". In the Proceedings of the 29th IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Boston, MA, USA, pp. 780 - 787, (2017).
<https://doi.org/10.1109/ICTAI.2017.00123>
 9. Abeer Zaroor, **Mohammed Maree**, Muath Sabha.: "A Hybrid Approach to Conceptual Classification and Ranking of Resumes and their Corresponding Job Posts". Proceedings of the 9th KES International Conference on Intelligent Decision Technologies (KES-IDT 2017), Vilamoura, Portugal, pp 107-119, (2017).
https://doi.org/10.1007/978-3-319-59421-7_10
 10. Ahmed Ewais, **Mohammed Maree**, Olga De Troyer, Bayan Kharraz: "Audio and Video Adaptation Inside 3D Virtual Learning Environments". Proceeding of the 8th International Conference on eLearning (eLearning-2017), Belgrade, Serbia, Sep, pp 77-81, (2017).
 11. **Mohammed Maree**, Mohammed Belkhatir, Fariza Fauzi, Aseel Kmail, Ahmad Ewais, Muath Sabha.: "Multiple Ontology-based Indexing of Multimedia Documents on the World Wide Web". Proceedings of the 8th KES International Conference on Intelligent Decision Technologies (KES-IDT 2016). Tenerife, Spain, pp 51-62, (2016).
https://doi.org/10.1007/978-3-319-39627-9_5
 12. Aseel Kmail, **Mohammed Maree**, Mohammed Belkhatir, Saadat, M. Alhashmi.: "An Automatic Online Recruitment System based on Exploiting Multiple Semantic Resources and Concept-relatedness Measure"s. In the Proceedings of the 27th IEEE International Conference on Tools with Artificial Intelligence (ICTAI'15), Vietri sul Mare, Salerno, Italy, pp. 620 – 627, (2015).
<https://doi.org/10.1109/ICTAI.2015.95>
 13. Aseel Kmail, **Mohammed Maree**, and Mohammed Belkhatir.: "MatchingSem: Online Recruitment System based on Multiple Semantic Resources". In the Proceedings of the 12th International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'15), pp. 2654 – 2659, (2015).
<https://doi.org/10.1109/FSKD.2015.7382376>
 14. **Mohammed Maree**, Saadat M. Alhashmi, Mohammed Belkhatir, Andre Hawit.: "Automatic Construction of a Domain - independent Knowledge Base from Heterogeneous Data Sources". In Proceedings of the 9th International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'12), Chongqing, China, pp. 1483-1488, (2012).
<https://doi.org/10.1109/FSKD.2012.6234188>
 15. **Mohammed Maree**, Saadat M. Alhashmi and Mohammed Belkhatir.: "A Unified Ontology Merging and Enrichment Framework". In Proceedings of the 23rd IEEE International Conference on Tools with Artificial Intelligence (ICTAI' 11), Boca Raton, Florida, USA, pp.669 - 674, (2011).
<https://doi.org/10.1109/ICTAI.2011.106>
 16. **Mohammed Maree**, Saadat M. Alhashmi and Mohammed Belkhatir.: "QuerySem: Deriving Query Semantics Based on Multiple Ontologies". In Proceedings of the 12th International Conference on Web-Age Information Management (WAIM 2011), Wuhan, China. LNCS 6897, pp. 157–168, (2011).

17. **Mohammed Maree**, Mohammed Belkhatir and Saadat M. Alhashmi.: "General-Purpose Ontology Enrichment from the WWW". In Proceedings of the 12th International Conference on Web-Age Information Management (WAIM 2011). Wuhan, China, LNCS 6897, pp. 144 –156, (2011).
<https://doi.org/10.1007/978-3-642-23535-1> 14
18. **Mohammed Maree**, Saadat M. Alhashmi, Mohammed Belkhatir, H. Hidayat, and Bashar Tahayna.: "Multi-search: A Meta-search Engine Based On Multiple Ontologies". In Proceedings of the 6th Asia Information Retrieval Symposium (AIRS'10), in Cooperation with ACM SIGIR, Taipei, Taiwan, pp. 110-120, (2010).
<https://doi.org/10.1007/978-3-642-17187-1> 10
19. **Mohammed Maree** and Mohammed Belkhatir.: "A Coupled Statistical/Semantic Framework for Merging Heterogeneous Domain-Specific Ontologies". In Proceedings of the 22nd IEEE International Conference on Tools with Artificial Intelligence (ICTAI'10), Arras, France, pp. 159-166, (2010).
<https://doi.org/10.1109/ICTAI.2010.138>

TEACHING EXPERIENCE / OTHER CERTIFICATES

- **Undergraduate Courses** taught at Monash University and at the Arab American University:
 - Systems Analysis and Design – 2nd Year
 - Algorithms and Data Structures - 2nd Year
 - Computer Programming 2 - JAVA - 2nd Year
 - Digital Image Processing – 3rd Year
 - Digital Video and Audio – 4th Year
 - Human Computer Interaction - 3rd Year
 - Interactive Multimedia - 4th Year
 - Introduction to Multimedia – 1st Year
 - Special Topics 1 in Computer Science – 4th Year
 - Special Topics 2 in Computer Science – Information Retrieval – 4th Year
 - Computer Modeling and Animation using Maya – 3rd Year
 - Computer Aided Design and Drafting using Maya – 3rd Year
 - Special Topics 2 in Computer Information Technology – Digital TV and Cinematography – 4th Year
 - Multimedia Systems Analysis and Design – 3rd Year
 - Introduction to Information Technology – 1st Year
 - Programming Fundamentals 1 (C++1) – 1st Year
 - Programming Fundamentals 1 (C++1) Lab – 1st Year
 - Introduction to Computers – 1st Year
 - Multimedia and Business – 4th Year
 - Online Advertising Fundamentals – 4th Year
 - Computer Games Design and Development – 3rd Year
 - Principles of Object-Oriented Programming - Java – 3rd Year
 - Computer Skills – 1st Year
 - Fundamentals of Research Methods – 2nd Year
 - Selected Programming Language - Python – 5th Year
 - Special Topics in Information Technology – Python and IR – 4th Year
 - Programming Fundamentals II For It – Python for Multimedia Technology Students
- **Master Courses** at the Arab American University:
 - Advanced Research Methods
 - Information Retrieval
 - Natural Language Processing
 - Data Mining
 - Multimedia Forensics And Security
 - Master Thesis 1 & 2
- **Ph.D. Courses** at the Arab American University:
 - Natural Language Processing
 - Supervising PhD Students jointly with Supervisors from Forschungszentrum Jülich, Jülich, Germany
- Ministry of Higher Education, Palestine

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- *Member of the I.T. Course Study and Planning Committee*

SUPERVISION AND EXAMINATION ACTIVITIES

- **External Examiner** / Master Thesis / Universiti Tunku Abdul Rahman – Malaysia
Thesis Title: "Enhanced POS-Parts Of Speech (POS) Weighted Term Frequency-Inverse Document Frequency (Tf-Idf) In Question Classification of Examination Question Based on Bloom's Taxonomy".
Date: Jan, 2024.
- **Internal Examiner** / Master Thesis / Arab American University – Palestine
Thesis Title: "Lexicon-Based Sentiment Analysis for Arabic Slang Text". **Date:** Sep., 2021.
- **Internal Examiner** / Master Thesis / Arab American University – Palestine
Thesis Title: "Loan Risk Prediction Model Using Machine Learning". **Date:** July, 2021.
- **Internal Examiner** / Master Thesis / Arab American University – Palestine
Thesis Title: "Combining Multiple Supervised Machine Learning Algorithms to Detect Network Intrusion Attempts". **Date:** July, 2021.
- **Internal Examiner** / Master Thesis / Arab American University – Palestine
Thesis Title: "Detecting Complex Intrusion Attempts Using Hybrid Machine Learning Techniques". **Date:** July, 2021.
- **Internal Examiner** / Master Thesis / Arab American University – Palestine
Thesis Title: "Image Classification in the Cultural Heritage". **Date:** March, 2019.
- **Internal Examiner** / Master Thesis / Arab American University – Palestine
Thesis Title: "Prediction of Water Demand in the North of Palestine Using Artificial Neural Networks".
Date: Nov, 2018.
- **External Examiner** / Master Thesis / Al -Quds University – Palestine
Thesis Title: "Image Retrieval System Based on Arabic Ontology". **Date:** August, 2014.
- **Internal Examiner** / Master Thesis / Arab American University – Palestine
Thesis Title: "Development of Facebook Data Extractor, Analysis and Visualization Tool". **Date:** July, 2018.
- **Reviewer** / Zuhair Hijawi Award for Undergraduate Research / The Arab American University – Palestine. **Dates:** May, 2014, May, 2017, June, 2018.
- **Supervision** of Bachelor in Computer Science (B.CS) Students at Monash University-Sunway Campus
- **Supervision** of Bachelor in Computer Science (B.CS) Students during their internships from Beirzeit University-Ramallah, Palestine
- **Supervision** of Senior Projects for Multimedia Technology, Computer Science, and Computer Information Technology Students at The Arab American University- Jenin, Palestine
- **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Semantics-Based Online Recruitment System"
Duration: Dec, 2015 – Feb, 2016 – the student was the First Graduate in the Master of Computer Science program at the Arab American University.
- **Co-Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Investigating the Possible Adaptation Techniques for Multimedia Learning Resources Inside 3D Virtual Learning Environment"
- **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Query Reformulation in the Context of Medical Information Retrieval"
Selected for Funding as part of the PASS (Palestinian Startups Support Program) Funded by KOIKA and implemented by Leaders organization.
- **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "A Hybrid Approach to Conceptual Clustering and Ranking of Applicant Resumes to Their Corresponding Job Postings"

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- **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Towards A Sustainable and Safe Water Sector: Exploiting Internet of Things for Building A Smart Water Management System". **Funded by: Middle East Desalination Research Center (MEDRC)-Palestinian Water Authority (PAW) Center of Excellence Scholarship Program. Grant (\$3000).**
 - **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Towards A Precision-Oriented Multi-Lingual Semantics-Based Cultural Heritage Recommender System". **Received Internal Fund from the Arab American University. Amount (JD 6995).**
 - **Supervisor / Master Thesis** / The Arab American University, Palestine Jointly with Dr. Mohcine Chraibi, Co-supervisor from Juelich Research Center FZJ – Germany
Thesis Title: "Pedestrian Dynamics: Experimental Investigation of the Fundamental Diagram Across Cultures"
 - **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "A Query-based Symptom–Cognitive–Neural Model for the Estimation of Dopaminergic Medication Dosage in Children with ADHD"
 - **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "On Developing a Knowledge-based Context-sensitive Sentence Level Sentiment Analysis System"
 - **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "On the Combination of NLP and Extrinsic Semantic Resources for Developing an Arabic-English Sentiment Analyzer"
 - **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Bilingual NLP-Based Tool for Clinical Depression Screening and Severity Prediction in the Palestinian Society"
 - **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Depression detection from Social Network Arabic data using NLP"
 - **Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Analysis of Arabic Sentiment Reviews on Social Media and E-Commerce Using Word2Vec and BERT Models"
 - **Co-Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Arabic Handwritten Signature Recognition based on Deep Learning Approach"
 - **Co-Supervisor / Ph.D. Thesis** / Thesis Project offered as part of the Joint Research and Education Programme "Palestinian-German Science Bridge PGSB". Forschungszentrum Jülich GmbH, Germany & Palestine Academy for Science and Technology, Palestine
Thesis Title: "Towards A Context-oriented Human Motion Prediction Approach"
 - **Co-Supervisor / Ph.D. Thesis** / Thesis Project offered as part of the Joint Research and Education Programme "Palestinian-German Science Bridge PGSB". Forschungszentrum Jülich GmbH, Germany & Palestine Academy for Science and Technology, Palestine
Thesis Title: "Predicting Pedestrian Future Trajectories at Open environment using Deep Learning algorithms based on GPS dataset"
 - **Main-Supervisor / Ph.D. Thesis** / Thesis Project offered as part of the Ph.D. in Engineering Information Technology Program.
Thesis Title: "Building a Large-scale Bi-lingual Medical Lexical Semantic Network for Psychiatric Diseases"
 - **Co-Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Insider Threat Detection Through User Behavior Analytics and Machine Learning"
 - **Main-Supervisor / Master Thesis** / The Arab American University – Palestine

Thesis Title: "Analyzing Customer Reviews On Banks Mobile Applications: A Bilingual Approach Using Natural Language Processing For Topic Detection And Sentiment Analysis"

- **Co-Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Arabic Sentiment Analysis and Interpretation Using Deep Learning and Explainable Artificial Intelligence"
- **Co-Supervisor / Master Thesis** / The Arab American University – Palestine
Thesis Title: "Machine Learning-Based Assessment of In-Vitro Fertilization Outcomes: A Case Study of Palestine"

PROFESSIONAL MEMBERSHIPS

- Intelligent Pedestrian Dynamics - Special Interest Group (IPD-SIG): Computational Modelling and Experimental Investigation of Heterogeneous Crowd Compositions. A research cluster in cooperation between Arab American University, Palestine and Forschungszentrum Jülich, Germany.
Role: Research cluster representative at Palestinian university and supervision of topics related to Intelligent Pedestrian Dynamics Prediction and Analysis Approaches.
<http://palast.ps/index.php/en/profile/dr-mohammed-maree>
- IEEE Member, Jan, 2024.
<https://www.ieee.org/>
- Member of the Palestine Young Academy (PYA) from 09/2020 to 08/2024
<https://sites.google.com/view/pya2020/members?authuser=0>
- Centre for Research in Intelligent Systems (CRIS) - Monash University Research Group Member
<http://www.infotech.monash.edu.au/research/centres/cris/>
- Senior Member of the International Association of Computer Science and Information Technology (IACSIT). <http://www.iacsit.org/>
- High Degree by Research (HDR) Students Representative - Monash University, Sunway Campus
<http://www.monash.edu.my/>
- Member of the international committee of the Advanced Institute of Convergence Information Technology AICIT's conference series. <http://www.aicit.org/>
- Member of the International Association of Engineers (IAENG). <http://www.iaeng.org/>
- Editorial Board Member in Science Publishing Group System, International Business and Economics Research Journal
<http://www.sciencepublishinggroup.com/journal/news.aspx?journalid=178>
- Member of the organizing committee for the ACM Palestinian Collegiate Programming Contest (PCPC), The Arab American University, 2014 and 2015.
- Member of the organizing committee for the First Lego League (FLL), The Arab American University, 2016 and 2017.
- Member of the TPC (Technical Program Committee) for the ICCISN'2018 (2018 International Conference on Computer Intelligent Systems & Networking) conference. <https://easychair.org/cfp/ICCISN2018>

PROFESSIONAL RESEARCH ACTIVITIES

- Reviewer, World Wide Web (WWW) Journal. <https://www.springer.com/journal/11280>
- Reviewer, Computational Intelligence Journal. <https://onlinelibrary.wiley.com/journal/14678640>
- Reviewer, Artificial Intelligence Review Journal. <https://link.springer.com/journal/10462>
- Reviewer, Expert Systems Journal. <https://onlinelibrary.wiley.com/journal/14680394>
- Reviewer, IEEE Access Journal. <https://ieeaccess.ieee.org/>
- Reviewer, IEEE Transactions on Industrial Informatics.
<https://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=9424>
- Reviewer, ACM Journal on Computing and Cultural Heritage (JOCCH). <https://jocch.acm.org/>
- Reviewer, Journal of Information Science. <http://journals.sagepub.com/home/jis>
- Reviewer, Knowledge-Based Systems Journal. <http://ees.elsevier.com/knosys/default.asp>
- Reviewer, Journal of Community Informatics. <http://ci-journal.net/index.php/ciej>

- Reviewer, Journal of Information and Knowledge Management. <http://www.worldscientific.com/worldscinet/jikm>
- Reviewer, Journal of Community Informatics. <http://ci-journal.net/index.php/ciej>
- Reviewer, Webology Journal. <http://www.webology.org/>
- Reviewer, Arabian Journal for Science and Engineering. <https://www.springer.com/engineering/journal/13369>
- Reviewer, IEEE Conference on Open Systems 2011 (ICOS 2011). <http://www.cs.ieseemalaysia.org/ICOS2011/home.html>
- Reviewer, International Conference on Next Generation Information Technology (ICNIT 2011) <http://www.aicit.org/ICNIT/index.html>
- Reviewer, 16th International Business Information Management Association (IBIMA) <http://www.ibima.org/MY2011/index.html>
- Reviewer, 2012 IEEE Symposium on Computers & Informatics (ISCI 2012) <http://http://www.mypels.org/isci2012>
- Reviewer, 18th International Business Information Management Association (IBIMA) <http://www.ibima.org/TR2012/index.html>
- Reviewer, 2012 IEEE Conference on Open Systems (IEEE ICOS 2012, 2013) <http://cs.ieseemalaysia.org/ICOS2012/>
- Reviewer, 13th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2017). http://icnc-fskd.guet.cn/icnc_fskd/index.html

PROJECTS

- **During my Bachelor Study**
 - Asset Management System
 - Route Planning System
 - Bank System (Internship Course) _ Integrated Technology Group - Amman/Jordan (www.itg-group.com)
 - E-MOHE Community System (Senior Project) for the Ministry of Higher Education (MOHE) in Palestine
- **During my Ph.D. Study:**
 - Gulf-German Training Centre <http://www.ggmtc.com>
 - MultiSearch: A Meta-search Engine based on Multiple Ontologies
 - QuerySem: A system for Deriving Query Semantics based on Multiple Ontologies and Dynamically Enriched Ontologies
- **During my work at gSoft Technology Solutions Inc.:**
 - vAds System <https://mixberrymedia.com/>
 - Monica™ Executive Virtual Assistant <http://www.mymonica.com/>
- **During my work at Dimension Consulting Company:**
 - Jerusalem Water Undertaking (JWU):
 - Build Business Process Maps (BPM) and Procedures Manual for each of the Five departments at JWU
 - Conduct SWOT and STEP analysis
 - Review the Vision and Mission Statements of the JWU
 - Preparing a Strategic Plan for a 3-year horizon
 - Develop Operational Development Plan based on the business of the JWU and under the newly adopted organizational structure
 - Develop Procedure Manuals for all of the Departments at the JWU
 - Welfare Association (WA):
 - Work closely with the consultant to develop the reports that pertain to the ECD and CSP programs
 - Evaluate the final reports and produce high quality deliverables
 - Municipal Development & Lending Fund (MDLF) - Strategic Development and Investment Planning (SDIP) for selected municipalities in Palestine:
 - Support 12 Palestinian municipalities in Developing/Updating their SDIPs
 - Manage the various phases of the project
 - Manage Dimensions team and coordinate with Dimensions' consultants
 - Review the SDIP documentations and provide support/training to the selected municipalities
 - Train the municipal council, employees, and the core planning teams at the different municipalities on using the SDIP Procedures and Tools Manuals
 - Review the reports, Strategic Development Frameworks (SFD), and the complete SDIP document of each municipality
 - Support 3 of the selected municipalities in Monitoring, Evaluating, and Updating their SDIPs
 - Faisal Hussein Foundation (FHF):
 - Project Manager for the Baseline, Midterm and Final Study Evaluation provided for the Comprehensive School Upgrading Program

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- Manage Dimensions Team and Coordinate with Dimensions' Consultants
 - Review/update the produced reports
 - GIZ (SPS – Strengthening of Police Structure Programme):
 - Standard Operating Procedures (SOPs) Expert
 - Manage Dimensions Team and Dimensions' Consultants in the Field
 - Review/update the produced reports
 - **During my work at The Arab American University:**
 - Interactive Non-linear Stories Project:
The project idea was submitted to both **Leaders** (www.leader.ps) and **Ibdaa** organizations (www.ibdaa.ps) and it is the only project idea that was selected for incubation (among other 14 ideas submitted from the Arab America University) by **Leaders** organization. Also, the idea was one of the top 10 project ideas (among 97 others submitted by 4 different universities) that won in **Ibdaa's** competition in 2015.
 - StoryLights Project:
The project idea (interactive storyboarding web-based application) was submitted to **Ibdaa** organization (www.ibdaa.ps) in the second round of competition in 2016, and it was ranked in the 2nd place in the competition.
 - Semantics-based Online Recruitment System:
In this project, we propose an automatic semantics-based online recruitment system that employs knowledge represented by multiple existing semantic resources to match between candidate resumes and job posts. In addition, we utilize statistical-based semantic relatedness measures to compensate for missing background knowledge in the exploited semantic resources.
 - Multiple Ontology-based Ad Serving – From Content to Context Advertising:
In this research work, we propose a novel multi-level context-based ads serving approach through which ads will be served at generic publisher websites based on their contextual relevance. In the proposed system, multiple semantic resources will be exploited in order to analyze and segment Web pages into a set of contextually-relevant parts. The outcomes of this process will be employed by a matching algorithm that matches each ad in the Ads repository with one or more relevant contexts.
 - Investigating the possible adaptation techniques for Multimedia Learning Resources inside 3D virtual Learning Environment:
This research aims to investigate the different adaptation techniques that can be applied to the audio and video learning resources which are considered as one of the important components of the 3D Virtual Learning Environments. As a result, such adaptation techniques can be used to improve the learning outcomes from a 3D Virtual Learning Environment.
 - UniGov - Erasmus+ - Capacity Building Programme:
This project is in the Field of Higher Education. It was accepted in 2016. The project is leaded by An-Najah National University in collaboration with Islamic University in Gaza, The Arab American University, and Palestine Polytechnic University. The title of the project is: UniGov (Improving Governance Practices at Palestinian Higher Education Institutions).

TECHNICAL SKILLS

- **Operating Systems:** Linux and Windows
- **Programming Languages:** R, Python, C++, Java, JSP, ASP/VB.NET, C#, VB, Java Script, OpenGL, VRML, PHP.
- **Tools & Apps:** NetBeans, Visual Studio.Net, Protégé, Premiere, Maya, Unity, RapidMiner, LightSide, Weka, Apache lucene, PyCharm, RStudio, Anaconda, Scikit-learn, PyTorch, NLTK, CoreNLP, NetworkX
- **RDBMs:** SQL Server, Oracle, MySQL, SQLite
- **Web:** (Web Design using Dreamweaver, MS Front page, CSS, and HTML)
- **Mobile Development:** (Android)

PERSONAL SKILLS

- Ability to manage and lead a team
- Ability to work well under pressure
- Good interpersonal and communication skills
- Coordination and administrative skills
- Excellent research skills
- Excellent project management skills
- Excellent training and facilitation skills

LANGUAGES

- Arabic – native language
- English – Speaking/ Excellent, Reading/ Excellent, Writing/Excellent

REFEREES

- Associate Professor. Saadat M. Alhashmi, University of Sharjah, United Arab Emirates.
Phone: (+971) 563 435 862
Email: salhashmi@sharjah.ac.ae
- Associate Professor. Mohammed Belkhatir, Lyon University, France.
Email: mohammed.belkhatir@iut.univ-lyon1.fr
- Prof. Chris Messom, Monash University, Sunway Campus, Kuala Lumpur, Malaysia.
Phone: (+603) 5514 6155
Email: c.h.messom@monash.edu