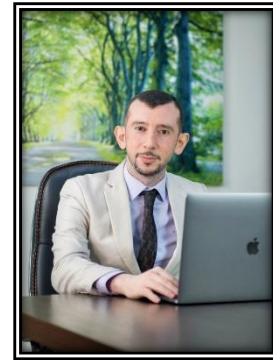


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## HOTHEFA SHAKER JASSIM

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- <https://scholar.google.com.my/citations?user=QDUBtR0AAAAJ&hl=en>
- <https://om.linkedin.com/in/hotheifa-shaker-al-obidy-5a027877>



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### SUMMARY

A positive attitude, public college background, excellent communication skills, and proficiency in co-curricular activities are some of my characteristic traits. A keen interest in academic management as well as teaching and research. An excellent academic track record and 15 years of management, education, and research experience are the other factors that would help me create a wonderful academic environment for my university.

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### KEY ACHIEVEMENTS:

- **Qualifications:** BSc in, MSc in Computer Science, PhD in Computer Engineering.
- **Post-Doctoral:** Obtained post-doctoral fellowship in Data communication and networking from UKM.
- **Publications:** Published over 40 articles in refereed international journals, many of which are indexed by Scopus and ISI.
- **Conferences:** Presented at 20+ International conferences and local conferences.
- **Supervision:** Successfully supervised 18 postgraduate students, including 13 master's and 5 PhDs.
- **Research Grants:** Secured funding for 9 projects totaling \$538,000 from governments and industries.
- **Positions:** Associate dean for postgraduate studies and research, Head of Departments, Director of graduate studies, Deputy dean, and actively chaired multiple committees within academia, fostering collaboration and innovation.
- **Programs:** Established several MSc and BSc programs aligned with international and local accreditation.
- **Teaching Experiences:** Accumulated 18 years of teaching experience for IT and computer engineering courses in various international universities, engaging with students from over 36 nationalities.

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### EXPERIENCE SUMMARY:

- 2020-Current:** Associate dean for postgraduate studies and research, MCBS, Oman
- 2018-2020:** Director of Postgraduate Studies, MCBS, Oman
- 2016-2018:** Acting Head of Mathematics and Computer Science, MCBS, Oman.
- 2014-2016:** Chair of computer Engineering KUST, Iraq
- 2012-2014:** Post Doctorial Fellowship, UKM, Malaysia
- 2010-2012:** Lecturer, Uniten, Malaysia

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### MEMBERSHIPS:

- IEICE (Japan) - Institute of Electronics, Information and Communication Engineers
- IEEE Computer Society
- Power Engineering Centre (PEC)
- Centre for Information and Network Security (COINS)
- Systems and Machines Intelligence (CSMI)

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**EDITORIAL BOARD MEMBERSHIPS & REVIEWER:**

- Editorial Board Membership & Reviewer
  - The International Journal of Ad Hoc, Vehicular, and Sensor Networks (IJAHVSN) - 2014-2020
  - PC chair for ICITB2022, ICITB2024 Springer conference.
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**EDUCATION BACKGROUND:**

**2012-2013:** *Post-Doctoral from college of Computer Science and Technology, The National University of Malaysia (UKM), Bangi, Selangor, 43600, Malaysia.*

**Field of Research:** Mobile Ad-Hoc Networking

**Category:** *Networking, Computer and Communication Technology (NCT)*

**2009-2012:** *PhD in Computer and Communication Engineering (Research)*

College of Engineering. University Tenaga Nasional, Km 7, Jalan Kajang-Puchong, 43009 Selangor, Malaysia.

**Project Title:** *“Routing Algorithm for Mobile Ad-Hoc Network Using Electromagnetic-Like Mechanism ”*

**Field of Research:** Wireless and Mobile Ad-Hoc Networking

**Category:** *Networking, Computer and Communication*

**Technology(NCT) Area:** *Communication and Routing protocols.*

**2007-2009:** *Master of Information Technology (Systems and Networking Department)*

College of Information Technology. Universiti Tenaga Nasional, Km 7, Jalan Kajang-Puchong, 43009 Selangor, Malaysia.

**Project Title:** *“security and effectiveness measure enhancements in AODV routing protocol in mobile ad-hoc network”*

**Field of Research:** *Security in Mobile ad-hoc Networking*

**Category:** *Information, Computer and Communication Technology*

**(ICT) Area:** *Communication and Routing protocols.*

**2000-2005:** *Bachelor of Computer Science (Honors)*

Department of Software Engineering. University of Al-Anbar, T'meem street, Al-Anbar, PO Box 55 Al-Ramadi, Republic of Iraq. Project Title: *“Development of stepper motor control System using parallel port /C programming”*

**Field of Research:** *System and networking*

**RESEARCH EXPERIENCE (FUNDED RESEARCH PROJECTS):**

**2022-2023:** **Post-pandemic mathematics education: How online teaching challenges shape the future of mathematics education in OMAN**, Sultanate of Oman , The Research Console TRC, Sultanate of Oman.

**2021-2022:** **Vehi-Trak - A Smart and Secure Blockchain System to Track Vehicle History in Sultanate of Oman** , The Research Console TRC, Sultanate of Oman.

**2011 -2012:** *“IEEE 802.16 (WiMAX) Teletraffic Performance Improvement by Innovative Smart Antenna System”*. **Project code:** 01-20-03-SF0202. TNB, Malaysia

**2010-2011:** *Research officer, College of Engineering, Universiti Tenaga Nasional: “Mobile Ad- Hoc Network (MANET) Reliability Enhancement Using Artificial Intelligent technique”*. **Project code:** J 510050304.

**2009-2010:** *Power Engineering Centre Group, Universiti Tenaga Nasional: "Development of an Intelligent Abnormalities and Probable Fraud Detection System for LPC Metered Customer in TNB Distribution". Project code: RJO 10086885*

**2007- 2008:** *Network and Security Group, Universiti Tenaga Nasional: Enhancement of security for routing protocol in mobile ad-hoc network: "Implementation of a Multi-Platform Wireless Mobile Ad-Hoc Network (MANET) Experimental Testbed For a Security Enhanced Ad-Hoc On-Demand Distance Vector Routing Protocol". Project code: 01-02-03-SF0106*

#### **ACADEMIC TEACHING EXPERIENCE (COURSES TAUGHT):**

- Managerial Applications of Object-Oriented Programming.
- Programming in C.
- Research Methods in Computing.
- Data Communication and Networks.
- Fundamental of Networking.
- Principle of Programming.
- Network Simulation.
- Visual Basic Programming.
- Introduction of Operating Systems.
- Foundation of Information System.
- Software Developments.
- Business Mathematics.
- Calculus.
- Operating System Concepts.
- Computer Networks and the Internet.
- Tutorials for system administration (Linux).

#### **PhD PROJECTS (SUPERVISION)**

**2024: *The Impact of Digital-Only Banks and Fintech on the Financial Sector in Gulf Cooperation Council Countries" Malaysia. Uniten.***

**2024: *Uniten University, Smart Ports Sustainability in Seaports of Sultanate of Oman.***

**2023: *Universiti Tenaga Nasional, Thesis title: "Investigating the Potentials of Artificial Intelligence in Improving Small and Medium Industries in Oman".***

**2021: *Universiti Tenaga Nasional, Thesis title: "Improving The ICT Development Index In Oman: From The Perspective Of ICT Use: The Case Study Of The Sultanate Of Oman".***

**2016- : *University Technology Malaysia UTeM. Thesis title: "Intelligence Agent System for Mobile Ad Hoc Networks".***

#### **SELECTED MASTER PROJECTS FULL THESIS (SUPERVISION)**

**January 2024:** Thesis title: *"Towards Enhancing Oman Cyberspace Through Centralized PDNS Service"*

**January 2024:** Thesis title: *"Digital Transformation as a mean to Enable SME Sustainability and Growth".*

**May 2023:** Thesis title: *"Black hole implementation in single and multipath Routing Protocol and network evaluation for MANET".*

**May 2020:** Thesis title: *"Blockchain Technology's Status of Implementation in Oman: Empirical Study".*

**May 2019:** Thesis title : *"Optimization in GPSR Greedy Perimeter Stateless Routing Protocol for MANET".*

- May 2019:** Thesis title: *“Fuzzy Logic-based Trusted and Power-aware Routing Protocol in Mobile Ad-hoc Networks”*.
- January 2018:** Thesis title: *“A Trusted Power-aware Routing Protocol for Mobile Ad-hoc Networks based on Fuzzy Logic”*.
- January 2013:** Thesis title: *“Determining an optimum zone radius for Zone Routing Protocol (ZRP) based on network size and density”*
- January 2013:** Thesis title: *“Determining an optimum zone radius for Zone Routing Protocol (ZRP) based on node mobility”*
- October 2022:** Thesis title: *“Real Time Decision Making for Autonomous Driving Vehicles”*

**PROFFSIONAL DEVELOPMENT:**

- July 2024:** *“First Online Scopus Training Session by Scopus Expert”*, Scopus, online.
- May 2024:** *“OAAA ISA 2”*, OAAA, MOHERI, Hormuz Grand Muscat.
- June 2024:** *“Encryption Technology”*, MCBS
- March 2024:** *“Real-Time Object Detection (Rod2022)”*, Muscat College.
- February 2024:** *“Research in a Nutshell - Becoming A More Visible Researcher”*, online.
- February 2023:** *“تحسين أداء سلطنة عمان في مؤشر جاهزية الشبكات”*, ديوان عام هيئة تنظيم الاتصالات.
- January 2023:** *“التحول الرقمي والذكاء الاصطناعي المحدث في التعليم العالي”*, 2024 م, وزارة التعليم
- November 2022:** *“Academic Publishing for Scopus and Web of Science Journals - Reviewers' Perspective”*, online.
- September 2023:** *“دعم النشر العلمي”*, 5 سبتمبر, 2023 م, وزارة التعليم العالي والبحث العلمي والابتكار.
- April 2012:** Participated as presenter in workshop: *“Network Simulation & AI Implementation for routing protocols”*. Supported by Track enhance company and R&D Uniten TNB at UTem, Melaka.
- August 2010:** Participated in Artificial Intelligence Solutions for R&D: *“Support Vector Machine & Ant Colony”*. Supported by IEEE, R&D Uniten TNB.
- June 2010:** Participated in Artificial Intelligence Solutions for R&D: *“Fuzzy Logic & Particle Swarm Optimization”*. Supported by IEEE, R&D Uniten TNB.
- May 2010:** Participated in Artificial Intelligence Solutions for R&D: *“Quikseries: An Affordable CAD for Designers”*. Supported by IEEE, R&D Uniten TNB.
- April 2010:** Participated in Artificial Intelligence Solutions for R&D: *“Genetic algorithm & Artificial Immune System”*. Supported by IEEE, R&D Uniten TNB.
- December 2008:** Participated in (MSTC 2008) Malaysia Science and Technology Congress 2008 at Kuala Lumpur Convention Centre as presenter for: *“Subjective Logic with Scalar Value to Establish Trust in Mobile Ad hoc Network”*.
- November 2008:** Participated in the 4<sup>th</sup> International Conference on Information Technology and Multimedia (ICIMu).
- October 2008:** Participated in ICIMu tutorial on: *“NETWORK SECURITY: Sniffing, Spoofing & MITM-Triple threats from within the LAN”*.

**LIST OF CURRENT PUBLICATIONS**

- **Hothefa Shaker Jassim**, Rahil Al Majizi, Z, Tarq, (2024), Securing the Digital Frontier: A Comprehensive Analysis of Threats and Countermeasures in Digital Forensics, IEEE, OI DT.
- Alwashahi, M., **Jassim, H.**, & Abdelfattah, F. (2024). Securing the Internet of Things (IoT) in the Quantum Era: Challenges and Future Directions for Quantum-Resistant Cryptography. Preprints. <https://doi.org/10.20944/preprints202408.0816.v1>
- P. Rodrigues, R. Fernandes, P. Vijaya, M. Al Washahi and **H. Shaker**, (2024) "Predictive Analytics Techniques in the Agricultural Industry: A Case Study," 2024 11th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), Noida, India, pp. 1-6, doi: 10.1109/ICRITO61523.2024.10522171.
- Luka Jovanovic, Milos Dobrojevic, **Hothefa Shaker**, Nebojsa Bacanin (2024) : Signals Intelligence Based Drone Detection Using YOLOv8 Models, pp 74 – 86, Atlantis Press, Springer Nature, [10.2991/978-94-6463-482-2\\_6](https://doi.org/10.2991/978-94-6463-482-2_6)
- Bacanin, Nebojsa, **Hothefa Shaker Jassim**, Miodrag Zivkovic, S. S. Askar, and Mohamed Abouhawahsh. "Quasi-reflection learning arithmetic optimization algorithm firefly search for feature selection." **Heliyon** 9, no. 4 (2023).
- Jovanovic, L., Bacanin, N, **Shaker, H.**, & Zivkovic, M. (2023, May). Decomposition Aided Bidirectional Long-Short-Term Memory Optimized by Hybrid Metaheuristic Applied for Wind Power Forecasting. In *International Conference on Computational Sciences and Sustainable Technologies* (pp. 30-42). Cham: Springer Nature Switzerland.
- Al Balushi, Y., **Shaker, H.**, & Kumar, B. (2023, January). The use of machine learning in digital forensics. In *1st International Conference on Innovation in Information Technology and Business (ICIITB 2022)* (pp. 96-113). Atlantis Press.
- Mabsali, N. A., **Jassim, H.**, & Mani, J. (2023, January). Effectiveness of Wireshark Tool for Detecting Attacks and Vulnerabilities in Network Traffic. In *1st International Conference on Innovation in Information Technology and Business (ICIITB 2022)* (pp. 114-135). Atlantis Press.
- Kumar, B., & **Shaker, H.** (2023, January). Design and Execution of Secure Smart Home Environments on Visual Simulation Tool. In *1st International Conference on Innovation in Information Technology and Business (ICIITB 2022)* (pp. 262-280). Atlantis Press.
- Zivkovic, M., Petrovic, A., **Jassim, H. S.**, & Bacanin, N. (2022). Novel chaotic best firefly algorithm: COVID-19 fake news detection application. In *Advances in Swarm Intelligence: Variations and Adaptations for Optimization Problems* (pp. 285-305). Cham: Springer International Publishing.
- Jovanovic, L., Hajdarevic, Z., **Jassim, H. S.**, Strumberger, I., Bacanin, N., ... & Antonijevic, M. (2022, September). Tuning extreme learning machine by hybrid planet optimization algorithm for diabetes classification. In *Congress on Intelligent Systems* (pp. 23-36). Singapore: Springer Nature Singapore.
- Jovanovic, L., Bacanin, N., Antonijevic, M., & **Jassim, H. S** (2022, May). Plant classification using firefly algorithm and support vector machine. In *2022 IEEE Zooming Innovation in Consumer Technologies Conference (ZINC)* (pp. 255-260). IEEE.
- Jovanovic, L., Zivkovic, Ivanovic, M., & **Jassim, H. S**. (2022, May). An emperor penguin optimizer application for medical diagnostics. In *2022 IEEE Zooming Innovation in Consumer Technologies Conference (ZINC)* (pp. 191-196). IEEE.
- Al Rubaiei, M. H., Jassim, H. S., & Sharef, B. T. (2022). Performance analysis of black hole and worm hole attacks in MANETs. *International Journal of Communication Networks and Information Security*, 14(1), 126-131.

- Khalid Waleed, **Hothefa Shaker Jassim**, Salman Yussof and Hussein M. “*Review of current Routing Protocols in Mobile Ad Hoc Networks*”, European Journal of Scientific Research, ISSN:1450-216x. Ref: 1112/EJSR117411.2014.
- **Hothefa Shaker Jassim**, Hussien Sari, and Salman Yussof , “*Determining an optimum zone radius for Zone Routing Protocol (ZRB) based on Network Size and Density*”, trends in Applied Sciences Research, , ISSN:1818-4952. ISI & SCOPUS Indexed. Article No. 63292-TASR-AJ. April 2014
- **Hothefa Shaker Jassim**, Sieh Kiong Tiong, Salman Yussof and Siaw Paw Koh, “*EMNet: Electromagnetic-like Mechanism based Routing Protocol for Mobile Ad Hoc Networks*”, Accepted and published in trends in Applied Sciences Research, , ISSN:1818- 4952. ISI & SCOPUS Indexed. pp. 7: 881-900.March 2013.
- **Hothefa Shaker Jassim**, Sieh Kiong Tiong, Salman Yussof and Siaw Paw Koh, “*Intelligent Trusted and Power-aware Based Routing Protocol in Mobile Ad-hoc Networks*”. Accepted and published in Research Journal of Applied Sciences Engineering and Technology. ISSN 1974-6059. ISI Indexed
- **Hothefa Shaker Jassim**, Salman Yussof, Sieh Kiong Tiong and Siaw Paw Koh, “*Scenario based performance analysis of reliant ad hoc on-demand distance vector routing (R-AODV) for mobile ad hoc network*”, Accepted and published in Journal of Engineering and Computer Innovations Vol. 2(5), 2011, pp. 78–89, May 2011. ISSN: 2141-6508
- **Hothefa Shaker Jassim**, Salman Yussof, Sieh Kiong Tiong and Siaw Paw Koh, “*A Routing Protocol Based on Trusted and Shortest Path Selection for Mobile Ad Hoc Network*”, Accepted and published in 9th Malaysia International Conference on Communication, 15-17th, December, 2009. Kuala Lumpur. SCOPUS Indexed. ISI Indexed
- **Hothefa Shaker Jassim**, Sieh Kiong Tiong, Salman Yussof, and Siaw Paw Koh, “*Path Selection Technique for High Transmission Ratio and Reliable Routing in MANET*”. Accepted and published in Journal of Applied Sciences, vol. 11(22), 2011, pg 3744 – 3749. ISSN: 1812-5654. ISI & SCOPUS Indexed.
- **Hothefa Shaker Jassim**, Roslan Ismail, Salman Yussof, Azimah Abdul Gapar, “*Establishing Trust in Mobile Ad hoc Networks based on Extended Subjective Logic*”, Proc. of Int. Conference on Malaysian Science and Technology Congress 2008 (MSTC 2008), KLCC, Malaysia, 16-17 December 2008. Page(s): 771 – 775.
- **Hothefa Shaker Jassim**, Salman Yussof, Sieh Kiong Tiong and Siaw Paw Koh, “*Mobile Ad-hoc Network Reliability Enhanced through Trust Mechanism Implementation in AODV Routing Protocol*” Accepted in 4<sup>th</sup> Int. on Broadband Communication, Information Technology & Biomedical Applications, BroadBandCom '09 Wroclaw, with IEEEExplore, Poland, 15th to 18th, July, 2009.
- **Hothefa Shaker Jassim**, Roslan Ismail , Salman Yussof and Azimah Abdul Ghapar “*Survey: Current Issues and challenges in Mobile Ad Hoc Networks*”, in Proceedings of student conference on research and development 2008,(SCORED),19-20 August 2008, Malaysia.
- **Hothefa Shaker Jassim**, Sieh Kiong Tiong, Salman Yussof and Siaw Paw Koh, “*New Multipath Routing Algorithm for Mobile Ad-hoc Network (MANET) using Electromagnetic-like Mechanism (EM) with Threshold Accepting (TA)*”, Accepted to be published in World Applied Sciences Journal, ISSN: 1818-4952. ISI & SCOPUS Indexed.

- Salwani Abdullah; Khalid Shaker; **Hothefa Shaker Jassim**, “*Investigating a round robin strategy over multi algorithms in optimizing the quality of university course timetables*”. published in International Journal of the Physical Sciences Vol. 6(6), pp. 1452–1462, 18 March, 2011. ISI index.
- Nor Symami Said, Raed Alsaqour, **Hothefa Shaker Jassim**, Maha Abdelhaq, Ola Alsaqour and Mueen Uddin, “*Review on Web Performance*”, Journal of Engineering and Applied Sciences, Vol.9, No.1, pp. 18-23, January 2014 (Scopus).
- Shafiyah N, Raed Alsaqour, **Hothefa Shaker Jassim**, Maha Abdelhaq, Ola Alsaqour and Mueen Uddin, “*Review on Web Performance*”, Middle-East Journal of Scientific Research, No.1, pp. 1375-1365, January 2013.
- N Baharudin, Raed Alsaqour, **Hothefa Shaker Jassim**, and T Alahdal, “*Review on Multiplexing Techniques in Bandwidth Utilization*”, Middle-East Journal of Scientific Research, No.1, pp. 1510-1516, January 2013.
- D zulkhifli, Raed Alsaqour, **Hothefa Shaker Jassim**, and Ola Alsaqour, “*Network services and applications: Web caching*”, Middle-East Journal of Scientific Research, No.1, pp. 1510-1516, January 2013.
- Baraa M. Abed, Khalid Shaker, Hamid A. Jalab, **Hothefa Shaker Jassim**, “*A Hybrid Classification Algorithm Approach for Breast Cancer Diagnosis*”. IEEE Industrial Electronics and Applications Conference, IEACon 2016 (SCOPUS-Indexed) (SCOPUS-Indexed)