جامعة الكويت
KUWAIT UNIVERSITY

❶ **Name & Rank:** Mohammad Hamad Alshayeji, Associate Professor

❷ **Education**

Degree	Discipline	Institution	Year
PhD.	Computer Science	University of Southern California	1999
M.Sc.	Computer Science	University of Central Florida	1994
B.Sc.	Computer Engineering	University of Miami	1989

❸ **Academic Experience**

Institution	Designation	Year/Period	FT/PT
Kuwait University, Kuwait	Associate Professor	Feb. 2018- Present	FT
Kuwait University, Kuwait	Assistant Professor	Dec 1999- Feb 2018	FT
Under Kuwait University Scholarship, USA	Research Scholar	Aug 1995- Dec 1999	FT
The Public Authority for Applied Education & Training (PAAET)	Faculty Member	May 1992- Aug 1995)	FT
Schlumberger	Field Engineer	Mar 1991-May 1992	FT
The Public Authority for Applied Education & Training (PAAET)	Computer Engineer	Dec 1989- Mar 1991	FT

❹ **Non-Academic Experience:**

Institution	Designation	Year/Period	FT/PT
Schlumberger	Field Engineer	(Mar 1991-May 1992	FT
The Public Authority for Applied Education and Training (PAAET)	Computer Engineer	(Dec 1989- Mar 1991)	FT

❺ **Certifications / professional registrations:** None

❻ **Membership in Professional Organization:**
- Association for Computing Machinery (ACM)
- IEEE Computer Society
- Kuwait Society of Engineers, Kuwait

❼ **Honors and Awards:**

- **Kuwait University Research Award 2024**

Mohammad H. Alshayeji, "Alzheimer's disease detection and stage identification from magnetic resonance brain images using vision transformer", Machine Learning: Science and Technology. 5 (2024), 035011, ISSN:2632-2153, DOI: https://doi.org/10.1088/2632-2153/ad5fdc

- **Kuwait University Research Award 2024**

Mohammad H. Alshayeji, "CAD system for epileptic seizure detection from EEG through image processing and SURF-BOF technique", Machine Learning: Science and Technology. 4 (2023), 045029, ISSN: 2632-2153, DOI: https://doi.org/10.1088/2632-2153/ad0572

- **Kuwait University Research Award 2023**

Mohammad H. Alshayeji, Sa'ed Abed, Silpa ChandraBhasi Sindhu, "Two-stage framework for diabetic retinopathy diagnosis and disease stage screening with ensemble learning", Expert Systems with Applications, 225, 2023, 120206, ISSN 0957-4174, https://doi.org/10.1016/j.eswa.2023.120206

- **Kuwait University Research Award 2023**

Mohammad H. Alshayeji, Silpa ChandraBhasi Sindhu, Sa'ed Abed, "Viral genome prediction from raw human DNA sequence samples by combining natural language processing and machine learning techniques", Expert Systems with Applications, May 2023, 119641, ISSN 0957-4174, https://doi.org/10.1016/j.eswa.2023.119641

- **Kuwait University Research Award 2022**

Bassam Jamil Mohd, Sa'ed Abed, Thaier Hayajneh and **Mohammad H. Alshayeji**, "Run-Time Monitoring and Validation Using Reverse Function (RMVRF) for Hardware Trojans Detection," in IEEE Transactions on Dependable and Secure Computing, vol. 18, no. 6, pp. 2689-2704, 1 Nov.-Dec. 2021, DOI: 10.1109/TDSC.2019.2961902

- **Kuwait University Research Award 2021**

Areej Ahmad Abdelaal, Sa'ed Abed, **Mohammad Al-Shayeji**, Mohammad Allaho, "Customized frequent patterns mining algorithms for enhanced Top-Rank-K frequent pattern mining", Expert Systems with Applications, Volume 169, 2021, 114530, ISSN 0957-4174, https://doi.org/10.1016/j.eswa.2020.114530

- **Kuwait University Research Award 2020**

Abed, S, Abdelaal, AA, **Mohammad H. Alshayeji**, Ahmad, I. "SAT-based and CP-based declarative approaches for Top-Rank-K closed frequent itemset mining", International Journal of Intelligent Systems, 2021; 36: 112− 151. https://doi.org/10.1002/int.22294

- **Kuwait University Research Award 2019**

Sa'ed Abed, **Mohammad H. Alshayeji**, Fahad Ebrahim, "A secure and energy-efficient platform for the integration of Wireless Sensor Networks and Mobile Cloud Computing", Computer Networks, Volume 165, 2019, 106956, ISSN 1389-1286, https://doi.org/10.1016/j.comnet.2019.106956

- **Kuwait University Research Award 2016**

Sa'ed Abed, Suood Abdulaziz Al-Roomi, and **Mohammad H. Alshayeji,** Effective optic disc detection method based on swarm intelligence techniques and novel pre-processing steps, Applied Soft Computing, Elsevier, ISSN 1568-4946, vol. 49, pp. 146-163, DOI: 10.1016/j.asoc.2016.08.015, 2016.

- **Best Paper Award**

Sa'ed Abed, Hanem Ellethy and **Mohammad Alshayeji**, "Continuous Formal Arabic Speech Recognition System Based on Hidden Markov Model," In Proc. of the 3rd International Conference On Computer Science Networks and Information Technology (ICCSNIT'17), Montreal, Canada, Aug. 26-27, 2017, pp. 110-121, IRP Publication, ISBN: 9780998900032.

- **Best Oral and Paper Award**

Sa'ed Abed, **Mohammad Alshayeji**, Zahra'a Abdullah and Zainab Al-Saeed, "Fault Tolerance Design for NoCs: Partial Virtual-Channel Sharing," In Proc. of the 6th International Conference on Software and Computer Applications (ICSCA 2017), Bangkok, Thailand, Feb 26-28, 2017, pp. 233-238. ACM, DOI: https://doi.org/10.1145/3056662.3056674.

- **Best Paper nomination Award**

Mohammad H. Alshayeji and M.D. Samrajesh, An energy-aware virtual machine migration algorithm, Proceedings of the IEEE Second International Conference on Advances in Computing and Communications (ACC-2012).

- **Best Oral Presentation Paper Award**

Mohammad H. Alshayeji, Freya Raina Saldanha, Haya Al Fassam and M.D. Samrajesh, Intelligent threat detection and mitigation in cloud computing, 2014, International Conference on Power and Energy Systems Engineering (CPESE 2014).

⑧ **Service Activities:**
Committee work

Department Level Committees
• <u>Coordinator</u> Research Committee (Multiple times)
• <u>Coordinator</u> Consultation Committee
• Graduate Program Committee
• <u>Coordinator</u> New Campus Committee (Multiple times)
• Appointment Committee (Multiple times)
• Scholarship Committee (Multiple times)
• <u>Coordinator</u> Educational Committee
• Advisory Council (Multiple times)
• <u>Coordinator</u> Course Scheduling Committee (Multiple times)
• <u>Coordinator</u> ENG 200 (Multiple times)
• <u>Coordinator</u> Capstone Committee (Multiple times)

• Lab and Budget Committee (Multiple times)
• <u>Coordinator</u> Students Activity Committee
<u>College Level Committees</u>
• Research Committee (Multiple times)
• Consultation Committee
• New Campus Committee (Multiple times)
• Core Courses Committee (Multiple times)
• Capstone Committee (Multiple times)
• Central Scheduling Committee (Multiple times)
• Computer Engineering Department Chairman Selection Committee
• Educational Committee
<u>University Level Committees</u>
• IT and Communications Infrastructure Committee (Multiple times)

Public Service

- <u>External Board Member for several years in University of Chicago - School of Public Policies (the TOP school of government in the world)</u>

- Leading the team assigned by private universities councils to evaluate a new IT related major in a private university in Kuwait. (2023/2024)

- Coordinator of the committee to prepare the acceptance exam for IT sector in Kuwait Fund for Arab Economic Development. (2021/ 2022)

- Committee member of the committee to prepare the promotion exam for IT sector in the Ministry of Justice. (2020/ 2021)

- Acted as an unpaid mentor to several online startups. (Since 2018)

- Legal Expert Kuwait court system (Since 2005)

- Team member in the Evaluation Team of Computer system supporting the Kuwait Cultural Divisions in nine countries (6 months)

- Kuwait International Quran Prize 2016

⑨ **Publications and Presentations (from past five years):**
Books:

1. Sa'ed Abed, Salam I. Nachawi and **Mohammad Alshayeji**, "Efficient Implementation of Parallel SAT Solver Based Stochastic Local Search," Nova Science Pub Inc., January 2020, ISBN: 978-1-53617-001-6 [88 pages], https://novapublishers.com/shop/efficient-implementation-of-parallel-sat-solver-based-stochastic-local-search/.

Refereed Journal Papers Published/Accepted:

1. **Alshayeji, M. H.**, Abed, S., & Sindhu, S. C. (2024). Automatic arabic handwritten characters Recognition using ensemble of convolutional neural networks from scratch. Multimedia Tools and *Applications*.https://doi.org/10.1007/s11042-024-20282-z

2. **Mohammad H. Alshayeji**, Sa'ed Abed, Silpa ChandraBhasi Sindhu "Automatic Arabic handwritten characters Recognition using ensemble of convolutional neural networks from scratch", Machine Learning: Science and Technology. 5 **(2024)**, 035011, ISSN:2632-2153, DOI: https://doi.org/10.1088/2632-2153/ad5fdc

3. **Mohammad H. Alshayeji**, "Alzheimer's disease detection and stage identification from magnetic resonance brain images using vision transformer", Machine Learning: Science and Technology. 5 (**2024**), 035011, ISSN:2632-2153, DOI: https://doi.org/10.1088/2632-2153/ad5fdc

4. **Mohammad H. Alshayeji**, "CAD system for epileptic seizure detection from EEG through image processing and SURF-BOF technique", Machine Learning: Science and Technology. 4 **(2023)**, 045029, ISSN: 2632-2153, DOI: https://doi.org/10.1088/2632-2153/ad0572 **(IF: 6.34, Q1 JCR (Journal Citation Reports))**

5. **Mohammad H. Alshayeji**, "Early Thyroid Risk Prediction by Data Mining and Ensemble Classifiers", Machine Learning and Knowledge Extraction. 2023, 5(3), 1195-1213; https://doi.org/10.3390/make5030061 (IF: 3.8, Q2 JCR (Journal Citation Reports)).

6. **Mohammad H. Alshayeji,** Al-Buloushi, J. "Breast Cancer Classification Using Concatenated Triple Convolutional Neural Networks Model", Big Data and Cognitive Computing. 2023, 7, 142. https://doi.org/10.3390/bdcc7030142 (IF: 3.6, Q2 JCR (Journal Citation Reports)).

7. **Mohammad H. Alshayeji**, Sa'ed Abed, and Silpa ChandraBhasi Sindhu, "Two-stage framework for diabetic retinopathy diagnosis and disease stage screening with ensemble learning", Expert Systems with Applications, 225, 2023, 120206, ISSN 0957-4174, https://doi.org/10.1016/j.eswa.2023.120206 (https://www.sciencedirect.com/science/article/pii/S095741742300708X) (IF: 8.665, Q1 JCR (Journal Citation Reports))

8. **Mohammad H. Alshayeji**, S. Abed, "Lung cancer classification and identification framework with automatic nodule segmentation screening using machine learning", Applied Intelligence, Mar 2023, 10.1007/s10489-023-04552-1, https://doi.org/10.1007/s10489-023-04552-1

9. **Mohammad H. Alshayeji**, Silpa ChandraBhasi Sindhu, and Sa'ed Abed, "Viral genome prediction from raw human DNA sequence samples by combining natural language processing and machine learning techniques", Expert Systems with Applications, 2023, 119641, ISSN 0957-4174, https://doi.org/10.1016/j.eswa.2023.119641

10. **Mohammad H. Alshayeji**, ChandraBhasi Sindhu, S. and Abed, S. "Early detection of diabetic foot ulcers from thermal images using the bag of features technique". Biomedical Signal Processing and Control, Volume 79, Part 2, Jan. 2023, 104143, ISSN: 1746-8094, Online ISSN: 1746-8108, DOI: https://doi.org/10.1016/j.bspc.2022.104143.

11. **Mohammad H. Alshayeji**, ChandraBhasi Sindhu, S. and Abed, S. "CAD systems for COVID-19 diagnosis and disease stage classification by segmentation of infected regions from CT images". BMC Bioinformatics 23, 264, Jul. 2022, ISSN: 1471-2105, Online ISSN: 1471-2105, DOI: https://doi.org/10.1186/s12859-022-04818-4

12. **Mohammad H. Alshayeji**, Al-Roomi, S.A. & Abed, S. "Efficient hand vein recognition using local keypoint descriptors and directional gradients", Multimedia Tools and Applications (2022). https://doi.org/10.1007/s11042-022-12608-6

13. **Mohammad H. Alshayeji** and Mousa AlSulaimi, Sa'ed Abed, and Reem Jaffal. "Network Intrusion Detection with Auto-Encoder and One-Class Support Vector Machine," International Journal of Information Security and Privacy (IJISP) 16, no.1: 1-18, 2022.

14. **Mohammad H. Alshayeji**, Hanem Ellethy, Sa'ed Abed, Renu Gupta, "Computer-aided detection of breast cancer on the Wisconsin dataset: An artificial neural networks approach", Biomedical Signal Processing and Control, Volume 71, Part A, 2022.

15. **Mohammad H. Alshayeji**, Sa'ed Abed, "Enhanced VoD Security in Cloud Computing Against Insider and Outsider Threats", International Journal of Security and Networks, Vol. 17, No. 1, 2022

16. **Mohammad H. Alshayeji**, Behbehani, B, Ahmad, I. "Spark-based parallel processing whale optimization algorithm", Concurrency and Computation Practice and Experience, 2022; 34(4): e6607. https://doi.org/10.1002/cpe.6607

17. Abed, S, Mohd, BJ, Hayajneh, T, **Mohammad H. Alshayeji**, "Hardware Trojan detection for lightweight ciphers implemented on field-programmable gate arrays using the replay algorithm," International Journal of Circuit Theory and Applications, 2021; 49(11): 3607- 3629. https://doi.org/10.1002/cta.3098

18. **Mohammad H. Alshayeji**, Al-Buloushi, J., Ashkanani, A., and Abed, S. "Enhanced brain tumor classification using an optimized multi-layered convolutional neural network architecture", Multimedia Tools and Applications, 80, 28897–28917 (2021). https://doi.org/10.1007/s11042-021-10927-8

19. Abed, S., Jaffal, R., Mohd, B.J., **Mohammad H. Alshayeji,** "An analysis and evaluation of lightweight hash functions for blockchain-based IoT devices", Cluster Computing 24, 3065–3084 (2021). https://doi.org/10.1007/s10586-021-03324-1

20. Areej Ahmad Abdelaal, Sa'ed Abed, **Mohammad Al-Shayeji**, Mohammad Allaho, "Customized frequent patterns mining algorithms for enhanced Top-Rank-K frequent pattern mining", Expert Systems with Applications, Volume 169, 2021, 114530, ISSN 0957-4174, https://doi.org/10.1016/j.eswa.2020.114530.

21. Abed, S, Abdelaal, AA, **Mohammad H. Alshayeji**, Ahmad, I. "SAT-based and CP-based declarative approaches for Top-Rank-K closed frequent itemset mining", International Journal of Intelligent Systems, 2021; 36: 112− 151. https://doi.org/10.1002/int.22294.

22. Abed, S., Jaffal, R., Mohd, B.J. and **Mohammad H. Alshayeji** (2021), "Performance evaluation of the SM4 cipher based on field-programmable gate array implementation", IET Circuits Devices Syst, 15: 121-135. https://doi.org/10.1049/cds2.12011

23. Bassam Jamil Mohd, Sa'ed Abed, Thaier Hayajneh and **Mohammad H. Alshayeji**, "Run-Time Monitoring and Validation Using Reverse Function (RMVRF) for Hardware Trojans Detection," in IEEE Transactions on Dependable and Secure Computing, vol. 18, no. 6, pp. 2689-2704, 1 Nov.-Dec. 2021, doi: 10.1109/TDSC.2019.2961902.

24. Sa'ed Abed, Mohammed H. Ali, and **Mohammad H. Alshayeji**, "Enhanced GPU based Anti-Noise Hybrid Edge Detection Method," Computer Systems Science and Engineering (CSSE), Vol. 35, No. 1, pp. 21-37, Jan. 2020

25. Khalil, Y, **Mohammad H. Alshayeji**, Ahmad, I. "Distributed Whale Optimization Algorithm based on MapReduce", Concurrency and Computation: Practice and Experience, 2019; 31: e4872. https://doi.org/10.1002/cpe.4872

26. Abed, S., Al-Roomi, S.A. & **Mohammad H. Alshayeji**, "Efficient cover image selection based on spatial block analysis and DCT embedding," EURASIP Journal on Image and Video Processing, 2019, 87 (2019). https://doi.org/10.1186/s13640-019-0486-8

27. Sa'ed Abed, **Mohammad H. Alshayeji**, Fahad Ebrahim, "A secure and energy-efficient platform for the integration of Wireless Sensor Networks and Mobile Cloud Computing", Computer Networks, Volume 165, 2019, 106956, ISSN 1389-1286, https://doi.org/10.1016/j.comnet.2019.106956.

28. Sahel Al-Ouneh, Sa'ed Abed, **Mohammad H. Alshayeji**, and Raed Mesleh, "A comprehensive study and analysis on SAT-solvers: advances, usages and 33 achievements", Artificial Intelligence Review, Vol. 52, Issue: 4, pp. 2575-2601, Dec. 2019, Springer, Netherlands, DOI: 10.1007/s10462-018-9628-0

29. Sa'ed Abed, **Mohammad H. Alshayeji**, and Sari Sultan, "Diacritics Effect on Arabic Speech Recognition", Arabian Journal for Science and Engineering, Vol. 44, No. 11, pp. 9043-9056, Springer Berlin Heidelberg, November 2019, DOI: https://doi.org/ 10.1007/s13369-019-04024-0.

30. Sa'ed Abed, Bassam Jamil Mohd, and **Mohammad H. Alshayeji**, "Implementation of Speech Feature Extraction for Low-Resource Devices", IET Circuits, Devices & Systems, Vol. 13, No. 6, pp. 863-872", The Institution of Engineering and Technology, September 2019, DOI: 10.1049/ietcds.2018.5225

31. Abed S, Jaffal R, Mohd BJ, **Mohammad H. Alshayeji**, "FPGA Modeling and Optimization of a SIMON Lightweight Block Cipher. Sensors (Basel). 2019 Feb 21;19(4):913. DOI: 10.3390/s19040913.

32. **Mohammad H. Alshayeji**, Mohammad A. Al-Rousan, Hanem Ellethy, Sa'ed Abed, "An efficient multiple sclerosis segmentation and detection system using neural networks", Computers & Electrical Engineering, Volume 71, 2018, Pages 191-205, ISSN 0045-7906, https://doi.org/10.1016/j.compeleceng.2018.07.020.

33. **Mohammad H. Alshayeji**, Mohammad Al-Rousan, Eman Yossef, Hanem Ellethy, "A Study on Fault Tolerance Mechanisms in Cloud Computing", International Journal of Computer and Electrical Engineering (IJCEE), Vol.10 (1): 62-71, 2018.

34. **Mohammad H. Alshayeji**, Yousef Sharaf, Sa'ed Abed, M.D. Samrajesh "AN ENHANCED VOD STREAMING MODEL FOR P2P CLOUD COMPUTING SYSTEMS", Journal of Telecommunication, Electronic and Computer Engineering (JTEC), Vol. 9 No. 2-6:11-15, 2018.

35. **Mohammad H. Alshayeji,** Suood Abdulaziz Al-Roomi, and Sa'ed Abed, Optic disc detection in retinal fundus images using gravitational law-based edge detection, Medical & Biological Engineering & Computing, Vol. 55, No. 6, pp. 935-948, 2017.

36. **Mohammad H. Alshayeji,** Sa'ed Abed and M. D. Samrajesh, Energy efficient virtual machine migration algorithm, Journal of Engineering Research (JER), Vol. 5, No. 2, pp. 198-221, June 2017.

37. Sa'ed Abed, Imtiaz Ahmad, **Mohammad Al-Shayeji** and Sari Sultan, "Automatic Verification of Single-Electron Transistor Arrays Based on Multiway Decision Graphs," IET Circuits, Devices & Systems, Vol. 11, No. 4, pp. 395-403, 2017.

38. Sa'ed Abed, Mohammed H. Ali and **Mohammad H. Alshayeji**, An adaptive edge detection operator for noisy images based on a total variation approach restoration, Computer Systems Science and Engineering, Vol. 32, No. 1, pp. 21-33, Jan. 2017.

39. **Mohammad H. Alshayeji**, Suood Abdulaziz Al-Roomi, and Sa'ed Abed, A high-capacity and secure least-significant-bit embedding approach based on word and letter frequencies, Security and Communication Networks, Vol. 9, No. 18, pp. 5764-5788, 2016.

40. Sa'ed Abed, Suood Abdulaziz Al-Roomi, and **Mohammad H. Alshayeji**. Effective optic disc detection method based on swarm intelligence techniques and novel pre-processing steps, Applied Soft Computing, vol. 49, pp. 146-163, 2016.

41. Sa'ed Abed, **Mohammad H. Alshayeji**, Sari Sultan, Nesreen Mohammad, Hybrid approach based on partial tag comparison technique and search methods to improve cache performance, IET Computers & Digital Techniques, vol. 10, no. 2, pp. 69–76, 2016.

42. Abed, Sa'ed, **Mohammad H. Alshayeji**, Ovais Ahmed, and Sahel Alouneh, Formal specification and description language and message sequence chart to model and validate session initiation protocol services, World Academy of Science, Engineering and Technology, International Journal of Computer, Electrical, Automation, Control and Information Engineering, vol. 10, no. 3, pp. 481-489, 2016.

43. **Mohammad H. Alshayeji,** Mohammad Al-Rousan, and Dunya T. Hassoun, Detection method for counterfeit currency based on bit-plane slicing technique, International Journal of Multimedia and Ubiquitous Engineering, vol. 10, no. 11, pp. 225-242, 2015.

44. Mohammad Al-Rousana, Elham Alshara, Yaser Jararweh, **Mohammad Alshayeji**, Cloudlet-based ad hoc mobile cloud computing: design and evaluation, International Journal of Embedded Systems, 2017 9:5, 456-463.

45. **Mohammad H. Alshayeji**, Desiree Noela Dias and M. D. Samrajesh, Enhanced chunk regulation algorithm for superior QoS in heterogeneous, Journal of Networks, vol. 10, no. 10, pp. 567-578, 2015.

46. Sa'ed Abed, **Mohammad Alshayeji** and Sahel Alouneh and M. D. Samrajesh, FPGA enhanced implementation of ECG QRS complex detection algorithm, International Journal of Circuits, Systems and Signal Processing, vol. 9, pp. 327-335, 2015.

47. **Mohammad H. Alshayeji**, Fahad Ebrahim and M. D. Samrajesh, Performance analysis of video codecs using transport stream video, Advanced Science Letters, American Scientific Publishers (ASP), USA, vol. 21, no. 1, pp. 102-106, 2015.

48. **Mohammad H. Alshayeji**, Mohammed H. Ali and M. D. Samrajesh, A hybrid multi-phased GPU sorting algorithm, Australian Journal of Basic and Applied Sciences, vol. 8, no. 23, pp. 315-322, 2014.

49. **Mohammad H. Alshayeji**, M. D. Samrajesh, Saud Abdulaziz Al-Behairy, and Khalid Assaf Al-Enazi, Context-aware replica placement in peer-to-peer overlay networks, International Journal of Computer Theory and Engineering, vol. 5, no. 2, pp. 383-387, 2013.

50. **Mohammad H. Alshayeji,** Abbas Fairouz, and M. D. Samrajesh, An enhanced distributed deadlock detection and recovery in process networks, International Journal of Computer and Electrical Engineering (IJCEE), vol. 4, no. 3, pp. 298-302, 2012.

51. **Mohammad H. Alshayeji**, Ghufran A. Al Shiridah, and M. D. Samrajesh, A secure framework for multimedia protection in social media networks, International Journal of Innovation, Management and Technology, vol. 3, no. 6, pp. 655-659, 2012.

52. **Mohammad H. Alshayeji,** AbdulRahman R Al-Azmi, AbdulAziz R Al-Azmi, and M.D. Samrajesh, Analysis and enhancements of leader elections algorithms in mobile ad hoc networks, International Journal on Network Security (IJNS), vol. 2, no. 4, pp. 19-24, 2011.

Conference Proceedings

1. Sa'ed Abed, B. J. Mohd, T. Hayajneh and **Mohammad Alshayeji**, "Runtime Trojan Detection using Step-Based Reverse Function Redundancy Algorithm," *2022 9th International Conference on Electrical and Electronics Engineering (ICEEE)*, 2022, pp. 362-366, doi: 10.1109/ICEEE55327.2022.9772601.

2. Sa'ed Abed, Hanem Ellethy and **Mohammad Alshayeji**, Continuous Formal Arabic Speech Recognition System Based on Hidden Markov Model, In Proc. of the 3rd International Conference on Computer Science Networks and Information Technology (ICCSNIT'17), Montreal, Canada, Aug. 26-27, 2017, pp. 110-121, IRP Publication, ISBN: 9780998900032

3. Sa'ed Abed, **Mohammad Alshayeji**, Zahra'a Abdullah, Zainab Al-Saeed, Fault tolerance design for NoCs: partial virtual-channel sharing, 6th International Conference on Software and Computer Applications (ICSCA 2017), Bangkok, Thailand, Feb. 2017

4. Sa'ed Abed, **Mohammad Alshayeji**, Ovais Ahmed and Sahel Alouneh. **"[Keynote Talk]**: Formal Specification and Description Language and Message Sequence Chart to Model and Validate Session Initiation Protocol Service," World Academy of Science, Engineering and Technology, International Science Index, International Journal of Computer, Electrical, Automation, Control and Information Engineering, vol. 2(3), 1575 –1583, ICETCIT 2016: International Conference on Emerging Trends in Computer and Information Technology, Miami, USA, March 24-25, 2016.

5. **Mohammad H. Alshayeji,** Sa'ed Abed, Aisha E. Bourahma, M. D. Samrajesh, A comparative study on mobile content delivery networks, 11th International Conference on Wireless and Mobile Communications (ICWMC 2015), Malta, Oct. 2015.

6. **Mohammad H. Alshayeji**, Abdullah Adnan and M. D. Samrajesh, An election algorithm for improved leader longevity in heterogeneous mobile ad-hoc networks, International Conference on Network Technologies (ICNT-2014), Shenzhen, China, Nov. 2014.

7. **Mohammad H. Alshayeji**, Freya Raina Saldanha, Haya AlFassam and M. D. Samrajesh, Intelligent threat detection and mitigation in cloud computing, International Conference on Power and Energy Systems Engineering (CPESE 2014), Shanghai, China, Sep. 2014.

8. **Mohammad H. Alshayeji**, Desiree Noela Dias and M. D. Samrajesh, Effective regulation of chunks for improved video continuity in P2P video-on-demand, 18th IEEE International Conference on Networks (ICON-2012), Singapore, Dec. 2012.

9. **Mohammad H. Alshayeji** and M. D. Samrajesh, An Energy-aware virtual machine migration algorithm, Proceedings of the IEEE Second International Conference on Advances in Computing and Communications (ACC-2012), Kochi, India, Aug. 2012.

10. Anaam Aljenaa, Fawaz Al-Anzi and **Mohammad H. Alshayeji**, Towards an efficient eLearning system based on cloud computing, Second Kuwait Conference on e-Services and e-Systems, Kuwait, Apr. 2011.

11. Bashayer Sadeq, Fawaz Al-Anzi and **Mohammad H. Alshayeji**, A new software engineering model for cloud computing-based software, Second Kuwait Conference on e-Services and e-Systems, Kuwait, Apr. 2011.

12. **Mohammad H. Alshayeji**, M. D. Samrajesh, Manal Alsarraf and Reem Alsuwaid, A comparative study on replica placement algorithms for content delivery networks, IEEE 2nd International Conference on Advances in Computing, Control and Telecommunication Technologies, ACT-2010, Jakarta, Indonesia, Dec. 2010.

⑩ **Recent Professional Development Activities:**