



Mahmoud Abdel Rahman Khasawneh

**Nationality:** - Jordanian

**E-Mail:** [m\\_khasawneh@ju.edu.jo](mailto:m_khasawneh@ju.edu.jo)

## **Education: -**

- 1- **January 2013-August 2017** Ph.D. degree in Electrical and Computer Engineering specialized in Computer Networks Security at Concordia University in Montreal, Canada with “Excellent” degree. **Thesis Title:** “A hierarchical Structure towards Securing Data Transmission in Cognitive Radio Networks”, **Supervisor:** Professor Anjali Agarwal.
- 2- **January 2011 –November 2012** Master’s degree in Electrical and Computer Engineering specialized in Wireless networks at Concordia University in Montreal, Canada with “Excellent” degree. **Thesis Title:** “Power Management in Cognitive Radio Networks”, **Supervisor:** Professor Anjali Agarwal.
- 3- **September 2005-June 2010** Bachelor’s degree in Computer Engineering from Jordan University of Science & Technology with a Good degree 75/100.
- 4- **September 2004-July 2005** Secondary School (TAWJIHI) at Al-Nuaimah Secondary School in Jordan with grade 91.6/100.

## **Work Experience:**

- 1- **September 2024 – Present:** Working as a full-time lecturer at the department of Computer Engineering in the University of Jordan, Amman, Jordan.
- 2- **September 2021 – August 2024:** Working as an **Assistant Professor** at the department of Computer Engineering/Network and Communication Engineering in Al Ain University, Abu Dhabi, United Arab of Emirates.
- 3- **September 2018 – August 2021:** Working as an **Assistant Professor** at the department of Computer Engineering in the American University of the Middle East (affiliated by Purdue University, USA), Eqaila, Kuwait.

- 4- **September 2017 – August 2018:** Working as an **Adjunct Professor** at the department of Computer Science in the Jordan University of Science and Technology (JUST), Irbid, Jordan.

## **List of Publications:**

1. Ahmed Al-Adaileh, Mousa Al-Kfairy, **Mahmoud Khasawneh**, Nabil El Moutawakil El Alami, “Exploring Sentiment and Topic Patterns in Metaverse Marketplace-Related Tweets”, 2023 Tenth International Conference on Social Networks Analysis, Management and Security (SNAMS), pp. 1-7.
2. **Mahmoud Khasawneh**, Ahmad Azab, Saed Alrabaae, Heba Sakkal, Hossameldein Hussein Bakhit, “ Convergence of IoT and cognitive radio networks: A survey of applications, techniques, and challenges”, *IEEE Access*, vol 11, oo. 71097-71112, 2023.
3. **Mahmoud Khasawneh**, Ahmad Azab, Saed AlRabaae, “ An Internet of Things-based System Towards Detecting Oil Spills”, 2023 International Conference on Intelligent Computing, Communication, Networking and Services (ICCNS), pp. 197-202.
4. Ahmad Azab, **Mahmoud Khasawneh**, Saed Alrabaae, Kim-Kwang Raymond, Maysa, Sarsour, "Network Traffic Classification: Techniques, Datasets and Challenges," *Elsevier Journal of Digital Communications and Networks*, 2022, <https://doi.org/10.1016/j.dcan.2022.09.009>.
5. Saed Alrabaae, KimKwang Raymond Choo, Mohammad Qbea'h and **Mahmoud Khasawneh**, “BinDeep: Binary to Source Code Matching Using Deep Learning”, *IEEE TrustCom 2021*, Shenyang, China.
6. Mamdouh El Haj Assad, Ibrahim Mahariq, Zaher Al Barakeh, **Mahmoud Khasawneh**, Mohammad Ali Amooie, “Modeling CO2 Emission of Middle Eastern Countries Using Intelligent Methods”, *CMC-Computers, Materials & Continua*, 2021, Vol. 69, No. 3, pp. 3767–3781.
7. **Mahmoud Khasawneh**, Ahmad Azab, and Anjali Agarwal, “Towards Securing Routing based on Nodes Behavior during Spectrum Sensing in Cognitive Radio Networks”, in *IEEE Access*, vol. 8, pp. 171512-171527, 2020, doi: 10.1109/ACCESS.2020.302466, (Impact Factor2020 → 3.745).
8. Ahmad Azab, **Mahmoud Khasawneh**, "MSIC: Malware Spectrogram Image Classification," in *IEEE Access*, vol. 8, pp. 102007-102021, 2020, doi: 10.1109/ACCESS.2020.2999320, (Impact Factor2020 → 3.745).

9. Ibrahim Arpaci, Shadi Alshehabi, Mostafa Al-Emran, **Mahmoud Khasawneh**, et.al. “Analysis of Twitter data using evolutionary clustering during the COVID-19 pandemic”, CMC-Computers, Materials & Continua, 2020, Vol. 65, No. 1, pp. 193–204, (Impact Factor2020 → 4.89).
10. **Mahmoud Khasawneh**, Anjali Agarwal, “A Collaborative Approach for Monitoring Nodes Behavior during Spectrum Sensing to Mitigate Multiple Attacks in Cognitive Radio Networks”, Security and Communication Networks, vol. 2017, ArticleID 3261058, 16 pages, 2017. <https://doi.org/10.1155/2017/3261058>, (Impact Factor2016 → 1.067).
11. **Mahmoud Khasawneh**, Anjali Agarwal, “A Secure and Efficient Authentication Mechanism Applied to Cognitive Radio Networks”, IEEE Access Journal, vol. 5, pp. 15597-15608, 2017, doi: 10.1109/ACCESS.2017.272332. (Impact Factor2016 → 3.244)
12. **Mahmoud Khasawneh**, Anjali Agarwal, “A Secure Routing Algorithm based on Nodes Behavior during Spectrum Sensing in Cognitive Radio Networks”, The 35<sup>th</sup> IEEE International Performance Computing and Communications Conference (IPCCC2016), pp. 1-8 Las Vegas, NV, USA, doi: 10.1109/PCCC.2016.7820642.
13. **Mahmoud Khasawneh**, Anjali Agarwal, “A Collaborative Approach for Identifying Misbehaving Nodes in Cognitive Radio Networks”, The 13<sup>th</sup> International Conference on Future Networks and Communications (FNC 2016), Montreal, QC, Canada.
14. **Mahmoud Khasawneh**, Anjali Agarwal, “A Two-Level Authentication in Cognitive Radio Networks”, the 28<sup>th</sup> Biennial Symposium on Communications (BSC16), Kelowna, BC, Canada.
15. **Mahmoud Khasawneh**, Anjali Agarwal, “Power Trading in Cognitive Radio Networks”, Elsevier Journal of Networks and Computer Applications, (Impact Factor2016→ 3.5), 2016.
16. **Mahmoud Khasawneh**, Anjali Agarwal “A Survey on Security Threats in Cognitive Radios”, Computer science and Information Technology Conference (CSIT2014), Jordan.
17. **Mahmoud Khasawneh**, Izadeen Kajman, Rashed Alkhudaigy, Anwar Althubyani, “A Survey on Wi-Fi Protocols: WPA and WPA2”, SNDS 2014: 496-511
18. **Mahmoud Khasawneh**, Anjali Agarwal, Nishith Goel, Marzia Zaman, Saed Alrabaee, “Sureness Efficient Energy Technique for Cooperative Spectrum

- Sensing in Cognitive Radios”, 2012 International Conference on Telecommunications and Multimedia (TEMU), Greece, 2012, Pages 25-30
19. **Mahmoud Khasawneh**, Anjali Agarwal, Nishith Goel, Marzia Zaman, Saed Alrabae “A Game Theoretic Approach to Power Trading in Cognitive Radio Systems”, The 20<sup>th</sup> International Conference on Software, Telecommunications and Computer Networks - SoftCOM 2012, September 11-13, 2012, Split, Croatia.
  20. **Mahmoud Khasawneh**, Anjali Agarwal, Nishith Goel, Marzia Zaman, Saed Alrabae, “A Price Setting Approach to Power Trading in Cognitive Radio Networks”, The 4<sup>th</sup> International Workshop on Mobile Computing and Networking Technologies 2012, WMCNT 2012, St. Petersburg, Russia.
  21. **Mahmoud Khasawneh**, Saed Alrabae, Anjali Agarwal, “Towards Security Issues and Solutions in Cognitive Radio Networks”, a **book chapter**, book name: The Advances in Wireless Technologies and Telecommunication, IGI Global, 2014.
  22. Saed Alrabae, **Mahmoud Khasawneh**, Anjali Agarwal, Nishith Goel, Marzia Zaman, “Applications Architectures and Protocol Design Issues for Cognitive Radio Networks: A Survey”, International Journal of Wireless and Mobile Computing, (Impact Factor 2014 → 1.151), 2014.
  23. Noman Saleem, Saed Alrabae, Fawaz A. Khasawneh, **Mahmoud Khasawneh**, “Aggregation Function using Homomorphic Encryption in Participating Sensing Application”, Computer science and Information Technology Conference (CSIT2014), Jordan.
  24. Saed Alrabae, Anjali Agarwal, Nishith Goel, Marzia Zaman, **Mahmoud Khasawneh**, “Higher Layer Issues in Cognitive Radio Network”, International Conference on Advances in Computing, Communications and Informatics (ICACCI) 2012, Aug 3 – 5, Pages 325-330, ISBN: 978-1-4503-1196-0, 2012, Chennai, India
  25. Saed Alrabae, Anjali Agarwal, Devesh Anand, **Mahmoud Khasawneh**, “Game Theory for Security in Cognitive Radio Networks”, International Conference on Advances in Mobile Network, Communication and its Applications – MNCApps 2012, Bangalore, India, Aug 1-2, 2012, Pages 60-63
  26. Saed Alrabae, Anjali Agarwal, Nishith Goel, Marzia Zaman, **Mahmoud Khasawneh**, “A Game Theory Approach: Dynamic Behaviors for Spectrum Management in Cognitive Radio Network”, GC'12 Workshop: The 4<sup>th</sup> IEEE International Workshop on Management of Emerging Networks and Services - MENS 2012, December 3-7, 2012, Anaheim, California USA.

27. Saed Alrabaee, Anjali Agarwal, Nishith Goel, Marzia Zaman, **Mahmoud Khasawneh**, "Comparison of Spectrum Management without game theory (SMWG) and Spectrum Management with game theory (SMG) for Network performance in Cognitive Radio Network", 2012 Seventh International Conference on Broadband and Wireless Computing, Communication and Applications, Nov 12-14, Victoria, Canada
28. Saed Alrabaee, Anjali Agarwal, Nishith Goel, Marzia Zaman, **Mahmoud Khasawneh**, "Routing Management Algorithm based on Spectrum Trading and Spectrum Competition in Cognitive Radio Networks", 2012 Seventh International Conference on Broadband and Wireless Computing, Communication and Applications, Nov 12-14, Victoria, Canada.
29. Saed Alrabaee, Anjali Agarwal, Nishith Goel, Marzia Zaman, **Mahmoud Khasawneh**, "QoS-CRNSM: QoS Routing Algorithm for Cognitive Radio Network Based on Spectrum Management", The 20th International Conference on Software, Telecommunications and Computer Networks - SoftCOM 2012, September 11-13, 2012, Split, Croatia.
30. Saed Alrabaee, Anjali Agarwal, Nishith Goel, Marzia Zaman, **Mahmoud Khasawneh**, "A Game Theoretic Approach to Spectrum Management in Cognitive Radio Network", The 4th International Workshop on Mobile Computing and Networking Technologies 2012, WMCNT 2012, St. Petersburg, Russia.