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CURRICULUM VITAE

Adnan Ahmad Abdelfattah Hnaif

Cyber Security/ Faculty of Science and Information Technology

Al-zaytoonah University of Jordan, Amman, Jordan

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1. Personal Data

Date of Birth: 19/09/1975
Nationality: Jordanian

2. Education

- Ph.D. (Network Security) 2010, Universiti Sains Malaysia (USM) , Penang, Malaysia

- M.Sc. (Information Technology) 2004, Alnelian University , Amman, Jordan

- B.Sc. (Computer Science) 1999, Mu'ta University, Alkarak, Jordan

3. Ph.D. Dissertation

Multi-processing Scalable String Matching Algorithm for Network Intrusion Detection System, USM, Penang, Malaysia.

4. Employment

Academic Positions

- Professor, Cyber Security, Al-zaytoonah University of Jordan, Amman, Jordan, April 15, 2021.
- Associate Professor, Computer Science, Al-zaytoonah University of Jordan, Amman, Jordan, Feb. 02, 2016.

Administrative Positions

- Chairman of Computer Science Department, Science and Information Technology, Al-zaytoonah University of Jordan, Amman, Jordan – 2018 to 2022
- Chairman of Compuer Network Department, Science and Information Technology, Al-zaytoonah University of Jordan, Amman, Jordan – 2015- 2017.
- Chairman of Computer Science Department, Science and Information Technology, Al-zaytoonah University of Jordan, Amman, Jordan – 2011- 2013.

5. Research Interests

1- Network Security
2- Computer networks and communications
3- Information security.
4- Parallel computing.

6. Certified Certificates

- Certified Ethical Hacker (CEH)

7. Teaching Experience

- **Graduate Courses**

  - Research Seminar for Master.
  - Parallel Programming.
  - Advanced Data Networking and Communications.
  - Special Topics

- **Undergraduate Courses**

  - Computer Networks and Communications
  - Network Security
  - Network Monitoring and Documentation
  - Object Oriented Programming
  - Mobile Programming.
  - Data Structure.

8. Membership in Scientific Societies and Associations

1- Associate Editor-in-Chief, International Journal of Advances in Soft Computing and its Applications IJASCA.
2- International Journal of Computer Networks & Communications (IJCNC)

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9. Honors and Awards

1- 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT)

9. Supervision of Graduate Research

➢ **Ehab Moufeed Alkhateeb**, *An Improved Approach for Secured Mobile Payment System Based on Public-Key Cryptography.* (Master's Co-Supervisor, ZUJ, Jordan), 2015

➢ **Duaa Nazzal**, *Multiprocessing Scalable String Matching Algorithm for Network Intrusion Detection System.* (Master's Supervisor, ZUJ, Jordan), 2016

➢ **Mohammad Abdul Mohdi Abdul Jawad**, *An Intelligent Road Traffic Management System Based on a Dynamic Routing Technique and Human Community Genetic Algorithm.* (Master's Supervisor, ZUJ, Jordan), 2017

➢ **Tariq Alsboui** , *A Heterogonous query-based Approach in Wireless Sensor Networks Using Watershed Segmentation Algorithm.* (Master's Supervisor, ZUJ, Jordan), 2018

➢ **Wassan Sami,** *Enhance Light Fidelity Security Level in Internet Data Communication by Using Public Key Cryptography.* (Master's Supervisor, ZUJ, Jordan), 2019

➢ **Tha'er Sawalha,** *Using Virtual Traffic Light (VTL) Technology and Genetic Algorithm for Road Traffic Optimization.* (Master's Co-Supervisor, ZUJ, Jordan), 2020

➢ **Ayman Alqaf'an,** *A New Approach to Enhance A Steganography System Based on the Key-Dependent Technique* (Master's Co-Supervisor, ZUJ, Jordan), 2020

10. Membership of Committees

• **National and International**

➢ *A member of the Board of the Faculty of Science & IT, 2011.*
➢ *The Head of the Computer-Science Course-Plan & References Committee, 2011-2013.*
➢ *The Head of the Network Course-Plan & References Committee, 2013-2015.*
➢ *The Head of the Network-Science Academic Advising, Training & Alumni Follow-Up Committee, 2016.*
➢ *The Head of the Computer-Science Examination & Evaluation Committee, 2018.*
➢ *A member of the Faculty of Science & IT Quality Assurance Committee, 2018.*

11. Professional and Scientific Meetings

Scientific Meeting Organized

- ➤ **Track Chair** in the International Conference on Information Technology (ICIT 2023), August 09th-10th, Amman, Jordan.
- ➤ **Track Chair** in the 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), Jordan, April 2019.
- ➤ Served on the Organizing Committee and Technical Committee of the biannual International Conference on Information Technology, Amman, Jordan, 2011-2017.
- ➤ **Publicity Committee** in the 8th International Conference on Information Technology - ICIT'2017 – Al Zaytoonah University – Jordan, May 2017.
- ➤ **Colloquium Chair** in the 3rd Information Technology Colloquium 2014 - ITC'14, Faculty of Science and IT, Al Zaytoonah Uni. of Jordan- will be on 6th May 2014.
- ➤ **Colloquium Chair** in the 2nd Information Technology Colloquium 2012-ITC'12, Faculty of Science and IT, Al Zaytoonah Uni. of Jordan- 17th April 2012.

Participation in Scientific Meeting

- ➤ Participate in the 9th International Conference on Information Technology ICIT 2019, Data Science, Al-Zaytoonah University of Jordan, Amman, Jordan, April 2019.

- ➤ Participate in the 8th International Conference on Information Technology ICIT 2017, Al-Zaytoonah University of Jordan, Amman, Jordan, May 2017.

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

1- Attending a training course in Ethical Hacking. 2022.
2- Attending a training workshop in the field of e-learning and preparing computerized courses. 2019
3- Arbitrator at the 20th Creative Forum "Globalization and its impact on developing countries / challenges and opportunities". 2018
4- Participating in training course entitled: Test Construction and Analysis of Results, 18-20 June 2017.
5- Implementing a workshop on server hardware, aVirtualization VM, Domain Control, DHCP and DNS Servers) and how it works. 2017.
6- Join Microsoft and Jordanian Universities Network (JUNet) in our 2017-2018 Academic Day. 2017

7- Participated in Quality Management System Foundation Course "ISO 9001:2015. 2017

8- Participated in a training course entitled by TEST CONSTRUCTION AND ANALYSIS OF RESULTS. 2017
9- Attending MICROSOFT DAY CONFERENCE 2016. 2016
10- Implementing a workshop entitled by MODERN TECHNOLOGIES IN COMPUTER NETWORKS. 2016
11- Attending a workshop entitled experts from the European Union in coordination with the Tempus office2015 .
12- Attending a workshop entitled E-Learning is a basic necessity to achieve a knowledge society. 2015.

13. Publications

A. Journal Papers

1- Derbas A, Ayyoub HY, Hyarat T, Hnaif A, Al-Quraan R, Al-Serhan A, et al. (2025) The role of E-learning in institutions of higher education in achieving the goals of sustainable development in Jordan. PLoS ONE 20(3): e0319192. https://doi.org/10.1371/journal.pone.0319192

2- Areej Derbas, Adnan Hnaif, Salah Al-Saleh, Ismail Al Zyoud, Haneen A. Al-Khawaja, "Challenges of IoT integration in education: A case study of students at Al-Zaytoonah University of Jordan", International Journal of Advanced and Applied Sciences, 12(1) 2025, pp. 125-131.

3- Mohammad Alia, Adnan Hnaif, Aseel Alrawashdeh, Yousef Jaradat, Mohammad Masoud, Ahmad Manasrah and Ahmad AlShanty, "Robust Image Watermarking using DWT, DCT, and PSO with CNN-Based Attack Evaluation", The International Arab Journal of Information Technology, Vol. 21, No. 6, November 2024

4- Adnan Hnaif, Areej Derbas, and Sally Almanasra, "Cybersecurity Integration in Distance Learning: An Analysis of Student Awareness and Attitudes", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 33, No. 2, pp. 1057-1066, 2024.

5- Mustafa AlRifaee, Sally Almanasra, Adnan Hnaif, Ahmad Althunibat, Mohammad Abdallah, and Thamer Alrawashdeh, "Adaptive Segmentation for Unconstrained Iris Recognition", Computers, Materials & Continua (CMC), Vol. 78, No. 2, pp. 1-19, 2024.

6- Ahmad Althunibat, Wael Alzyadat, Siti Sarah Maidin, Adnan Hnaif, "Prediction of Accessibility Testing using Generalized Linear Model for E-Government", Journal of Infrastructure, Policy and Development, vol. 8, no. 1, 2024.

7- Areej Derbas, Adnan Hnaif, Sally Almanasra, and Nancy Al-Ramahi, "The Educational, Economic and Social Impacts of E-learning Systems on Undergraduate Students", Migration Letters, Vol 21, No. 5. pp. 936-946, 2024.

8- Khaled Suwais, Adnan A Hnaif, and Sally Almanasra, "An Alternative Static Taint Analysis Framework to Detect PHP Web Shell-Based Web Attacks", Int. J. Advance Soft Compu. Appl, vol. 15, no. 3, 2023.

9- Ahmad AA Alkhatib, Adnan A. Hnaif, and Thaer Sawalha, "System for Road Traffic Optimization with Virtual Traffic Light Technology", Computer Systems Science and Engineering, Vol. 47, No. 1, pp. 637-656, 2023.

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10- Alrawashdeh, Thamer Ahmad, Lana Mahmoud, Abdelfatah Tamimi and Adnan Ahmad Hnaif, "Quality Model Of Cloud Healthcare Services: A Pairwise Comparison Approach", ICIC Express Letters Part B: Applications, Volume 13, Number 7, pp. 663- 671, July 2022.

11- Ala Mughaid, Shadi AlZu'bi, Adnan Hnaif, Salah Taamneh, Asma Alnajjar and Esraa Abu Elsoud, "An intelligent cyber security phishing detection system using deep learning techniques", Cluster Computing 25(6):3819–3828, (2022).

12- Nagham A. Al-Madi and Adnan A. Hnaif, "Optimizing Traffic Signals in Smart Cities Based on Genetic Algorithm", Computer Systems Science & Engineering, (IF 1.2), CSSE, vol.40, no.1, 2022.

13- Adnan A. Hnaif, Abdelfatah A. Tamimi, Ayman M. Abdalla and Iqbal Jebril, "A Fault-Handling Method for the Hamiltonian Cycle in the Hypercube Topology", Computers, Materials & Continua, SCI (IF 4.89), Vol. 68, No. 1 pp. 505-519, 2021.

14- Adnan A. Hnaif, Emran Kanan and Tarek Kanan, Sentiment Analysis for Arabic Social Media News Polarity, Intelligent Automation & Soft Computing, SCIE (IF 1.276), Vol. 28, No. 1, pp. 107-119, 2021.

15- Adnan A. Hnaif, Khalid Mohammad Jaber, Mohammad A. Alia, and Mohammed E. Daghbosheh, "Parallel Scalable Approximate Matching Algorithm for Network Intrusion Detection System", The International Arab Journal of Information Technology (IAJIT), ISI (IF 0.467), Vol. 18, No.1, pp. 77-84 https://doi.org/10.34028/iajit/18/1/9, 2020.

16- Haya Al-Masalha, Adnan A. Hnaif and Tarek Kanan, Cyber-Crime Effect on Jordanian Society, International Journal of Advances in Soft Computing and its Application (IJASCA), Vol. 12, No. 3, pp. 123-139, 2020.

17- Adnan A. Hnaif, Ali Aldahoud, Mohammad A. Alia, Issa S. Al'otoum and Duaa Nazzal, "Multiprocessing scalable string matching algorithm for network intrusion detection system", International Journal of High Performance Systems Architecture, Int. J. High Performance Systems Architecture, Vol. 8, No. 3, 2019

18- Ahmad AA Alkhatib, Adnan A. Hnaif, and Tarek Kanan, " Proposed simple system for Road Traffic Counting", International Journal of Sensors, Wireless Communications and Control, 2018 Vol. 8(3).

19- Ahmad A. A. Alkhatib, Mohammad Alia, Adnan Hnaif and Sufian Yousef, A novel method for localising a randomly distributed wireless sensor network, International Journal of Systems Assurance Engineering and Management, Vol. 9, No. 2, pp. 354–361, 2018.

20- Mohammad A. Alia, Adnan A. Hnaif, Ayman M. Abdalla and Eman Abu Maria, "An Improved Authentication Scheme Based on Graphical Passwords", 2018 August 2018 ICIC Express Letters 12(8):775-783, ICIC Express Letters 12(8):775-783. 2018.

21- Ahmad A. A. Alkhatib, Mohammad Alia, Adnan Hnaif, " Smart System for Forest Fire Using Sensor Network", International Journal of Security and Its Applications, Vol. 11, No. 7 (2017), pp.1-16, 2017.

22- Adnan A. Hnaif, Amnah El-Obaid And Nancy Al-Ramahi, "Traffic Light Management System Based On Hamiltonian Routing Technique", Journal of Theoretical and Applied Information Technology, 30th June 2017. Vol.95. No 12, pp. 2792 – 2802, 2017.3

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23- Zeyad Mohammad, Ahmad Abusukhon, Adnan A. Hnaif and Issa S. Al-Otoum, Performance Analysis of Route Redistribution among Diverse Dynamic Routing Protocols based on OPNET Simulation, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 8, No. 3, 2017

24- Adnan A. Hnaif, Mohammad A. Alia, "MOBILE PAYMENT METHOD BASED ON PUBLICKEY CRYPTOGRAPHY". International Journal of Computer Networks & Communications (IJCNC), 2015 .

25- Abdallah A. Hlayel, Adnan A. Hnaif. A New Exact Pattern Matching Algorithm (WEMA). Journal of Applied Sciences, 14(2): 193-196, ISSN 1812-5654 / DOI:10.3923/jas.2014.193.196 Vol. 14. 2014

26- Adnan A. Hnaif, "A New Platform NIDS Based on WEMA". International Journal of Information Technology and Computer Science (IJITCS), 2015.

27- Abdallah A. Hlayel, Adnan A. Hnaif. An algorithm to improve the performance of string matching. Journal of Information Science, 2014, DOI: 10.1177/0165551513519039, 14 January 2014.

28- Hayam K. Al-Anie, Mohammad A. Alia and Adnan A. Hnaif. E-Voting Protocol Based On Public-Key Cryptography. International Journal of Computer Science and Information Technology (IJCSIT). Vol. 3. 2011.

29- Mohammad A. Alia, Adnan A. Hnaif, Hayam K. Al-Anie , Khulood Abu Maria, Ahmed M. Manasrah, M. Imran Sarwar, A Novel Header Matching Algorithm for Intrusion Detection Systems, International Journal of Network Security & Its Applications (IJNSA), Vol.3, No.4, July 2011.

30- Mosleh M. Abu Alhaj, M. halaiqah, Muhannad A. Abu hashem, Adnan A. Hnaif, O. Abouabdalla, and Ahmad Manasrah, "An Innovative Platform to Improve the Performance of Exact-String Matching Algorithms", International Journal of Computer Science and Information Security, 2010.

31- Adnan A. Hnaif et al, Parallel Quick Search Algorithm to speed Packet Payload Filtering in NIDS, Journal of Engineering Science and Technology, 2009

B. Conference Papers

1- Samara, Ghassan & Elhilo, Alaa & Asassfeh, Mahmoud & Injadat, Mohammadnoor & Haj Qasem, Mais & Alazaidah, Raed & Aljaidi, Mohammad & Al-Milli, Nabeel & Hnaif, Adnan. (2023). Optimizing Road Safety through Intelligent Congestion Management. 1-7. 10.1109/ACIT58888.2023.10453674.

2- Adnan Hnaif, A New Framework to Cybersecurity Strategies for Protecting Computer Networks, 10th International Conference on Computational and Experimental Science and Engineering (ICCESEN), 27-30 October 2023, www.iccesen.org

3- Derbas, N. Al-Ramahi, A. Hnaif, T. Ahmad Alrawashdeh and R. Adnan Mubaideen, "The Effectiveness of E-Learning System on Students' of Al-Zaytoonah university of Jordan: A Case Study," 2023 International Conference on Information Technology (ICIT), Amman, Jordan, 2023, pp. 459-463, doi: 10.1109/ICIT58056.2023.10226073.

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4- Adnan A. Hnaif, Nagham AL-Madi, Mohammad Abduljawad, Amal Ahmad, "An Intelligent Road Traffic Management System Based on a Human Community Genetic Algorithm", 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), 978-1-5386-7942-5/19©2019 IEEE

5- Nancy Al-ramahi, Adnan A. Hnaif, Khalil Awad, "Advanced Weighted Exact Matching Algorithm (AWEMA)", 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), 978-1-5386-7942-5/19©2019 IEEE.

6- Adnan A. Hnaif. "WEMA to Speed up NIDS Packet Header Detection Engine", International conference of Advances in Intelligent Systems and Computing, Vol 533, 2016.

7- Imad J. Mohamad, Anas F. Bayan, Hussein A. Al bazaar, and Adnan A. Hnaif, " A New Dynamic-Auto-Static Technique for dhcpv4 IP Address Allocation", Proceeding of 2009 IEEE International Conference on Antennas, Propagation and Systems (INAS 2009), 3-5, Dec. 2009, Johor, Malaysia.

8- Adnan A. Hnaif et al, Parallel Quick Search Algorithm to speed Packet Payload Filtering in NIDS, International conference on Network Applications, Protocols and Services (NetApps, 2008).

9- Adnan A. Hnaif and Aman Jantan, A Proposed Method to Speed up the Filtering Packets Header and Save Memory, Prosiding capaian maklumat & Pengurusan Pengetahuan 2008.