

CURRICULUM VITAE

Adnan Ahmad Abdelfattah Hnaif

*Computer Science/ Faculty of Science and Information
Technology*

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1. Personal Data

Nationality: Jordanian

2. Education

- Ph.D. (Network Security) 2010, Universiti Sains Malaysia (USM), Penang, Malaysia
- M.Sc. (Computer Science) 2004
- B.Sc. (Computer Science) 1999

3. Ph.D. Dissertation

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

4. Employment

Academic Positions

- Associate Professor, Computer Science, Al-zaytoonah University of Jordan, Amman, Jordan
Feb. 02, 2016.

Administrative Positions



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Curriculum Vitae Form - Procedures of Appointment and Promotion Committee

- Chairman of Computer Science Department, Science and Information Technology, Al-zaytoonah University of Jordan, Amman, Jordan – 2018 to 2022
- Chairman of Computer 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.
- Associate Professor, Computer Science, Al-zaytoonah University of Jordan, Amman, Jordan
Feb. 02, 2016.

5. Research Interests

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

6. 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)

7. Honors and Awards

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

8. Fellowships and Scholarships

9. Teaching Experience

- *Graduate Courses*

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

- *Undergraduate Courses*



- Computer Networks and Communications 1 + 2
- Network Security
- Network Monitoring and Documentation
- Object Oriented Programming
- Mobile Programming.
- Databases.

10. 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 Alsouei**, *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

11. Grants

Provide a detailed list containing the project name, year of grant, grantor organization, and grant amount

12. Patents

13. 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*



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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 to present.*
- **University**
 - *Equivalency and Guidance Committee*

14. Professional and Scientific Meetings

Scientific Meetings Organized

- *Served on the Organizing Committee and Technical Committee of the biannual International Conference on Information Technology, Amman, Jordan, 2011-2017.*
- *Track Chair in the 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), Jordan, April 2019.*
- *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 meetings

- *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.*

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

- *Attending a training course in Ethical Hacking. 2022.*
- *Attending a training workshop in the field of e-learning and preparing computerized courses. 2019*
- *Arbitrator at the 20th Creative Forum "Globalization and its impact on developing countries / challenges and opportunities". 2018*
- *Participating in training course entitled: Test Construction and Analysis of Results, 18-20 June 2017.*



- Implementing a workshop on server hardware, aVirtualization VM, Domain Control, DHCP and DNS Servers) and how it works. 2017.
- Join Microsoft and Jordanian Universities Network (JUNet) in our 2017-2018 Academic Day. 2017
- Participated in Quality Management System Foundation Course “ISO 9001:2015. 2017
- Participated in a training course entitled TEST CONSTRUCTION AND ANALYSIS OF RESULTS. 2017
- Attending MICROSOFT DAY CONFERENCE 2016. 2016
- Implementing a workshop entitled by MODERN TECHNOLOGIES IN COMPUTER NETWORKS. 2016
- Attending a workshop entitled Experts from the European Union in coordination with the Tempus office2015 .
- Attending a workshop entitled E-Learning is necessary to achieve a knowledge society. 2015.

16. Publications

A. Journal Papers

- 1- Ahmad A. A. Alkhatib, Adnan A. Hnaif and Thaer Sawalha, “A New System for Road Traffic Optimisation Using the Virtual Traffic Light Technology”, Computer Systems Science & Engineering, (IF 1.2), CSSE, vol.47, no.1, 637-656, 2023
- 2- 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.
- 3- Ala Mughaid, Shadi AlZu’bi, Adnan Hnaif, Salah Taamneh, Asma Alnajjar and Esraa Abu Elsouid, “An intelligent cyber security phishing detection system using deep learning techniques”, Cluster Computing 25:3819–3828, (2022).
- 4- 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.
- 5- 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.



- 6- 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.
- 7- 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.
- 8- 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.
- 9- 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
- 10- 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).
- 11- 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.
- 12- 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.
- 13- 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.
- 14- 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
- 15- 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
- 16- Adnan A. Hnaif, Mohammad A. Alia, "MOBILE PAYMENT METHOD BASED ON PUBLICKEY CRYPTOGRAPHY". International Journal of Computer Networks & Communications (IJCNC), 2015 .
- 17- 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
- 18- Adnan A. Hnaif, "A New Platform NIDS Based on WEMA". International Journal of Information Technology and Computer Science (IJITCS), 2015.



- 19- 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.
- 20- 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.
- 21- 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.
- 22- 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.
- 23- 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- Hnaif A. Adnan, “A New Framework to Cybersecurity Strategies for Protecting Computer Networks”, 10th International Conference on Computational and Experimental Science and Engineering (ICCESEN-2023), 2023
- 2- Derbas, A., Ramahi, N., Hnaif, A., Ahmad Alrawashdeh, T., 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: Cybersecurity Challenges for Sustainable Cities, ICIT 2023 - Proceeding, 2023, pp. 459–463.
- 3- 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
- 4- 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.
- 5- Adnan A. Hnaif. “WEMA to Speed up NIDS Packet Header Detection Engine”, International Conference of Advances in Intelligent Systems and Computing, Vol 533, 2016.
- 6- 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.



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- 7- 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).
- 8- 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.