

# Rami Almatarneh

Professor Computer Science



Amman



+962780021284



ramimatarneh@gmail.com

## EDUCATION

**Ph. D. in Computer Science / Automation Design Systems, 2000,**

Kharkov state national and technical university of radioelectronics and information technology,

Dissertation: Methods and algorithms of the testability's estimation of digital devices on the design level.

**Master in Computer Intellect Systems and Networks, 1997,**

Kharkov state national and technical university of radioelectronics and information technology,

Dissertation: Testability and Fuzzy Logic.

**Bachelor of Computer Science, 1994,**

Mu'tah University,

## LANGUAGES

<b>Arabic</b>	Native
<b>Russian</b>	Excellent
<b>English</b>	Good

## EXPERIENCE

◆	<b>ASSISTANT PROFESSOR</b> (full time) Department of Computer Science, Irbid Private University, Jordan	9/2000 to 8/2001
◆	<b>ASSISTANT PROFESSOR</b> (part time) Department of Computer Science, Philadelphia University, Jordan	2/2001 to 8/2001
◆	<b>ASSISTANT PROFESSOR</b> (full time) Department of Computer Science, Philadelphia University, Jordan	9/2001 to 8/2006
◆	<b>ASSOCIATE PROFESSOR</b> (full time) Department of MIS, Al-Isra university, Jordan	9/2006 to 8/2010
◆	<b>ASSOCIATE PROFESSOR</b> (full time) Department of Computer Science, University of Hail, Kingdom of Saudi Arabia	9/2010 to 8/2014
◆	<b>FULL PROFESSOR</b> (full time) Prince Sattam Bin Abdulaziz University, Kingdom of Saudi Arabia	8/2015 to 7/2019
◆	<b>PRIVATE RESEARCHER</b> Private independent project to automate charcoal briquettes manufacturing, Indonesia	6/2022 to 12/2023
◆	<b>FULL PROFESSOR</b> (full time) Zarqa University, Jordan	2/2024 to Present

## CERTIFIED SKILLS

- Quality and academic accreditation of Saudi universities
- Preparing course descriptions
- Preparing course reports
- Preparation of internal and external audit
- Preparing technical and financial reports
- Adopting academic standards and formulating education outcomes
- Internal and external audit procedures
- Examination paper specifications and standards

## COMMITTEES

- Head of Graduation Projects and Field Training Committee, Zarqa University.
- Member of Graduate Studies Committee, Zarqa University.
- Head of scientific committee/ computer science department/ prince sattam bin abdulaziz university/ college of sciences & humanities at al-aflaj.
- Head of examination committee/ computer science department/ prince sattam bin abdulaziz university/ college of sciences & humanities at al-aflaj.
- Head of the of graduation projects committee in computer science department at the faculty of information technology / philadelphia university.
- Member of scientific committee in computer science department at the faculty of information technology / philadelphia university.
- Member of curriculum committee in the department of computer science and department of computer information systems / philadelphia university.
- Member of quality assurance committee of faculty of information technology / philadelphia university.
- Member of social committee at the faculty of information technology / philadelphia university.
- Head of the of library committee in computer science department at the faculty of information technology / philadelphia university
- Member of scientific committee in the department of management information systems at faculty of administrative and financial sciences / al-isra private university
- Head of curriculum committee in the department of management information systems at faculty of administrative and financial sciences / al-isra private university
- Main coordinator of exam committee, university of hail, college of computer science and engineering
- Main coordinator of faculty webpage committee, university of hail, college of computer science and engineering
- Main coordinator of curriculum committee, university of hail, college of computer science and engineering
- Head of curriculum committee in the department of computer science and software engineering department / university of hail

## MEMBERSHIPS

- Member of College Council / Prince Sattam Bin Abdulaziz University/ / College of Sciences & Humanities at Al-Aflaj.
- Member College Council of college of computer science and engineering/ University of Hail.
- Member of Information Technology College Council / Philadelphia University.
- Member of Jordan society for scientific research

## PROFESSIONAL EXPERIENCE

- Chairman of Computer Science Department/ Prince Sattam Bin Abdulaziz University/ / College of Sciences & Humanities at Al-Aflaj.
- Vice-dean for quality assurance and development/ University of Hail.
- Quality Assurance coordinator of computer science department / Philadelphia University.
- Quality Assurance (Certificate of Appreciation) / Philadelphia University.
- Participation in Quality Assurance Committee in University of Hail:
  - Prepared program specifications of Computer science department
  - Prepared requirements of college of computer sciences and engineering model #1 and model #11.
  - Participated in different work related to Quality Assurance

## ACADEMIC AND VOLUNTEER SERVICE

- Reviewer in international journal of computer science and information security
- Reviewer in journal of computers
- Reviewer in Journal of King Saud University - Computer and Information

## TEACHING EXPERIENCE

- Cryptography theory
- Data integrity, authentication and authorization
- Digital logic design
- Web development (ASP.NET Core)
- Introduction to computer science
- Computer skills I
- Computer skills II
- Assembly language
- Computer architecture
- Microprocessors
- Database systems
- Unix environment and programming
- 4GL (Oracle)
- System analysis and design
- Computer information systems
- Introduction to programming and C++
- Advanced C++
- Internet programming (HTML, VB script, Java script, CSS, ASP)
- Artificial Intelligence (AI)
- Professional Issues in computing and IT
- Introduction to IT
- Advanced database systems

- Security and control systems
- Real-time systems
- Software engineering
- Information security
- Concepts of programming languages
- Operating Systems
- Computer applications in marketing
- Internet Protocols and Client-Server
- Multimedia systems
- C sharp (C#)

## RESEARCH AND PUBLICATIONS

1. Rami Almatarneh, Mohammad Aljaidi, Ayoub Alsarhan, Amjad A. Alsuwaylimi. (2025). QR-DEF: A quantum-resistant hybrid encryption framework with dynamic entropy fusion and biomimetic obfuscation. *International Journal of Innovative Research and Scientific Studies*, 8(4), 156–166. <https://doi.org/10.53894/ijirss.v8i3.7747>
2. Rami Almatarneh, Mohammad Aljaidi, Ayoub Alsarhan, Alshammari, S. A., Alshammari, N. H. (2025). KTCGM: Towards A novel solution for enhancing Kerberos-5 with threshold cryptography and ML-based anomaly detection. *International Journal of Innovative Research and Scientific Studies*, 8(3), 3646–3662. <https://doi.org/10.53894/ijirss.v8i3.7328>
3. Rami Almatarneh, Mohammad Aljaidi, Ayoub Alsarhan, Alshammari, S. A., Alhamazani F., Alshammari A. B. (2025). An integrated AI-blockchain framework for securing web applications, mitigating SQL injection, model poisoning, and IoT spoofing attacks. *International Journal of Innovative Research and Scientific Studies*, 8(3), 2759–2773. [10.53894/ijirss.v8i3.7077](https://doi.org/10.53894/ijirss.v8i3.7077).
4. Rami Almatarneh, Mohammad Aljaidi, Ayoub Alsarhan, Sami Aziz Alshammari, Nayef H. Alshammari. (2025). The rising tide of social engineering: Trends, impacts, and multi-layered mitigation strategies. *International Journal of Innovative Research and Scientific Studies*, 8(3), 115–129. [10.53894/ijirss.v8i3.6443](https://doi.org/10.53894/ijirss.v8i3.6443)
5. Evon Abu-Taieh, Mohammed E. Daghbosheh, Rami Almatarneh, Suha Afaneh, Ala'aldin Alrowwad, Issam AlHadid, Rami S. Alkhawaldeh, Sufian Khwaldeh , Hamed S. Albdoor. (2025). Evaluating Generative AI Tool Adoption and Its Effects on Academic Performance, *Applied Mathematics & Information Sciences (AMIS)*, Volume 18, Issue 2, pp 1-13.
6. Mohammad Rasmi Al-Mousa, Samah Suleiman Al-Zou'bi, Sami Askar, Khaled AlQawasmi, Ala'a Saeb Al-Sherideh, Ghassan Samara, Rami Almatarneh, Mohammed Khouj, Mahmoud Odeh. (2024, December). IoT Security Based On Lightweight Cryptographic (LWC) Algorithms: A survey. In *2024 25th International Arab Conference on Information Technology (ACIT)* (pp. 1-9). IEEE.

7. Rami Matarneh, Irina Tvoroshenko, Vyacheslav Lyashenko. Improving Fuzzy Network Models for the Analysis of Dynamic Interacting Processes in the State Space, International Journal of Recent Technology and Engineering (IJRTE), 2019, Volume-8 Issue-4, pp. 1687-1693.
8. Rami Matarneh, Svitlana Sotnik, Oleksandr Zeleniy, Vyacheslav Lyashenko. Development of a Pneumatic Drives Parametric Model, American Journal of Engineering Research (AJER), 2019, Volume-8, Issue-3, pp. 221-228.
9. Rami Matarneh, Svitlana Sotnik, Zhanna Deineko, Vyacheslav Lyashenko, "Development of an Information Model for Industrial Robots Actuators." IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE), vol. 16, Issue 1, 2019, pp. 61-67. DOI: 10.9790/1684-1601056167
10. Rami Matarneh, Svitlana Sotnik, Nataliya Belova, Vyacheslav Lyashenko, Automated modeling of shaft leading elements in the rear axle gear, International Journal of Engineering & Technology (IJET), Volume 7, Issue 3, PP 1468-1473, 2018. DOI: 10.14419/ijet.v7i3.12258
11. Vyacheslav Lyashenko, Rami Matarneh, Svitlana Sotnik, Modeling of Machine Design with Numerical Control in UG NX 7.5 System, The International Journal of Engineering and Science (IJES), Volume 7, Issue 7, Ver. 1, PP 28-37, 2018. DOI: 10.9790/1813-0707012837.
12. Rami Matarneh, Svitlana Sotnik, Vyacheslav Lyashenko "3D Modeling of the Ball Bearing for the Front Axle Knuckle". International Journal of Computer Trends and Technology (IJCTT) V60(1):65-70 June 2018. ISSN:2231-2803. www.ijcttjournal.org. Published by Seventh Sense Research Group. DOI: 10.14445/22312803/IJCTT-V60P110
13. Rami Matarneh, Svitlana Sotnik, Nataliya Belova, Modeling of the Forming Process for Aluminum Detail, Vyacheslav Lyashenko, Saudi Journal of Engineering and Technology, 2018; 3(4):219-227. DOI: 10.21276/sjeat.2018.3.4.3
14. Vyacheslav Lyashenko, Rami Matarneh, Svitlana Sotnik. "Defects of Casting Plastic Products: Causes, Recurrence, Synthesis and Ways of Elimination." International Journal of Modern Engineering Research (IJMER), vol. 08, no. 02, 2018, pp. 01–11.
15. Rami Matarneh, Svitlana Sotnik, Zhanna Deineko, Vyacheslav Lyashenko, Highlights methodology of time characteristics optimization for plastic products production, International Journal of Engineering & Technology, Vol. 7, No. 1, 2018, pages: 165-173, DOI: 10.14419/ijet.v7i1.9169.
16. Rami Matarneh, Svitlana Maksymova, Oleksandr Zeleniy, Vyacheslav, Voice Control for Flexible Medicine Robot, International Journal of Computer Trends and Technology, Vol. 56 No. 1, 2018, pages: 1-5, DOI: 10.14445/22312803/IJCTT-V56P101.
17. Rami Matarneh, Svitlana Sotnik, Vyacheslav Lyashenko, Polymers in cardiovascular surgery. Asian Journal of Pharmaceutical and Clinical Research, Vol 11, Issue 5, 2018, 58-63.

18. Rami Matarneh, Svitlana Sotnik, Vyacheslav Lyashenko, Search of the molding form connector plane on the approximation basis by the many-sided surface with use of the convex sets theory. *International Journal of Mechanical and Production Engineering Research and Development*, Vol. 8, Issue 1 Feb 2018, Pages: 977-988. DOI: 10.24247/ijmpdfeb2018118.
19. Mozamel M. Saeed, Rami Matarneh, Recent Trends in Education in Sudan: Mobile-Learning Model, *International Journal of Emerging Research in Management & Technology*, Volume-6, Issue-11, 2017, Pages:5-12.
20. Rami Matarneh, Svitlana Maksymova, Zhanna Deineko and Vyacheslav Lyashenko, Building Robot Voice Control Training Methodology Using Artificial Neural Net. *International Journal of Civil Engineering & Technology (IJCIET)* - Scopus Indexed. Volume:8, Issue:10, 2017, Pages:523-532.
21. Rami Matarneh, Svitlana Maksymova, Vyacheslav V. Lyashenko, Nataliya V. Belova, Speech Recognition Systems: A Comparative Review, *IOSR Journal of Computer Engineering*, Volume 19, Issue 5, Ver. IV (Sep.- Oct. 2017), PP 71-79, DOI:10.9790/0661-1905047179.
22. Olena Khrystoforova, Rami Matarneh, Vyacheslav Lyashenko, Evaluation of Technical Efficiency in the Reflection of the Bank Management, Account and Financial Management Journal, Volume 2 issue 10 October (2017), DOI: 10.18535/afmj/v2i10.04.
23. Svitlana Sotnik, Rami Matarneh and Vyacheslav Lyashenko, system model tooling for injection molding, *International Journal of Mechanical Engineering & Technology (IJMET)*, Volume 8, Issue 9, 2017, pp. 378–390; ISSN Print: 0976-6340 and ISSN Online: 0976-6359.
24. Svitlana Maksymova, Rami Matarneh, Vyacheslav V. Lyashenko, Nataliya V. Belova, Voice Control for an Industrial Robot as a Combination of Various Robotic Assembly Process Models, *Journal of Computer and Communications* Vol. 5 No. 11, 2017, DOI: 10.4236/jcc.2017.511001.
25. Svitlana Maksymova, Rami Matarneh, Vyacheslav V. Lyashenko, Software for Voice Control Robot: Example of Implementation, *Open Access Library Journal* Vol. 4 No. 8, 2017, DOI: 10.4236/oalib.1103848.
26. Feras Matarneh, Rami Matarneh "Enhancing Fault-Tolerance in Ring Topology Based on Waiting Queue and Timestamp". *International Journal of Computer Trends and Technology (IJCTT)* Volume 43, No. 2: 133-137, January 2017, DOI: 10.14445/22312803/IJCTT-V43P120
27. Rami Matarneh, Quantitative Estimates of Computer Hardware Diagnosability, *International Journal of Asian Academic Research Associates*, Asian academic research journal of multidisciplinary, volume 4 issue 1, 2017, pp 77-88.
28. Valeria Baranova, Hryhorii Kots, Rami Matarneh, Vyacheslav Lyashenko, "Stochastic Frontier Analysis as a Tool for Evaluating the Effectiveness of Banks Lending To the

29. Vyacheslav V. Lyashenko, Rami Matarneh, Valeria Baranova, Zhanna V. Deineko, “Hurst exponent as a part of wavelet decomposition coefficients to measure long-term memory time series based on multiresolution analysis”, American Journal of Systems and Software, Vol. 4, No. 2, 2016, DOI:10.12691/ajss-4-2-4.
30. Oleg Vasyurenko, Maryna Khosha, Rami Matarneh, Vyacheslav Lyashenko, “Relationship between the financial security of bank employees and the efficiency of bank's activities: a case study on banks of Ukraine”, Scholars Journal of Economics, Business and Management, Vol. 3, Issue 11, 2016, DOI: 10.21276/sjebm.2016.3.11.2
31. Vyacheslav V. Lyashenko, Rami Matarneh, and Zhanna V. Deineko, “Using the Properties of Wavelet Coefficients of Time Series for Image Analysis and Processing.” Journal of Computer Sciences and Applications, vol. 4, no. 2 (2016): 27-34. doi: 10.12691/jcsa-4-2-1.
32. Valentin Lyubchenko, Rami Matarneh, Oleg Kobylin, Vyacheslav Lyashenko. Digital Image Processing Techniques for Detection and Diagnosis of Fish Diseases, International Journal of Advanced Research in Computer Science and Software Engineering, ISSN: 2277 128X , Volume 6, Issue 7, 79-83, 2016.
33. Vyacheslav V. Lyashenko, Rami Matarneh, Oleg Kobylin. Contrast modification as a tool to study the structure of blood components, Journal of Environmental Science, Computer Science and Engineering & Technology, E-ISSN: 2278–179X, Sec. B; volume 5, Issue 3, 150-160, 2016.
34. Vyacheslav V. Lyashenko, Rami Matarneh, Oleg Kobylin, Yevgeniy P. Putyatin. Contour Detection and Allocation for Cytological Images Using Wavelet Analysis Methodology, International Journal of Advance Research in Computer Science and Management Studies, ISSN: 2321-7782, Volume 4, Issue 1, 85-94, 2016.
35. Rami Matarneh, “Mathematical Model of Projective Transformations for Image Normalization Based On the Properties of Projective Geometry”, British Journal of Applied Science & Technology, ISSN: 2231-0843, vol. 11, issue 5, 2015.
36. Rami Matarneh, “Topological Conditions for Automated Diagnostic Software to Estimate the Diagnosability of Digital Devices at the Structural Level”, British Journal of Mathematics & Computer Science, ISSN: 2231-0851, vol. 10, issue 2, 2015.
37. Rami Matarneh, “Recognition and Analyzing the Influence of Chaotic Oscillations on Markov Process using Numerical Simulation Based on Qualitative Methods”, Journal of Scientific Research and reports, ISSN: 2320–0227, vol. 7, issue 4, 2015.
38. Feras Matarneh, Rami Matarneh, “Virtual Channel Switching Model to Simulate Switched Network”, European Journal of Scientific Research, ISSN: 1450-216X, Vol. 64, No.2, 2015.
39. Rami Matarneh, “Multi microkernel operating systems for multicore processors”, Journal of Computer Science, Scientific Publication, ISSN: 1738-7906, Vol.5, No.6, 2009.



40. Rami Matarneh, "Self-Adjustment Time Quantum in Round Robin Algorithm Depending on Burst Time of the Now Running Processes", American Journal of Applied Sciences, ISSN: 1546-9239, Vol.6, No. 10, 2009.
41. Rami Matarneh, "Estimating the weight of inputs in combined multiple truth values to enhance decision making process", International Journal of Computer Science and Network Security, ISSN: 1738-7906, Vol.9, No.4, 2009.
42. Rami Matarneh, Majed Hussein, "New Criteria to Maximize Traffic While Maintaining the Quality of the Information Flow in Enterprise Intelligent Networks", European Journal of Scientific Research, ISSN: 1450-216X, Vol. 37 No.1, 2009.
43. Rami Matarneh, Suha Al\_jbbouri, "User's authorization in singularity operating systems", International Journal of Computer Science and Network Security, ISSN: 1738-7906, Vol.9, No.2, 2009.
44. Fayez Al Najjar, Rami Matarneh, Majed Alzobi, "Intranet Electronics Examination System Among Academic Institutions: An Automated Project on Scientific Research Methodology Course", Journal of Baghdad College of Economic Sciences University, Vol. 19, No. 1, 2008.
45. Rami Matarneh, Fayez Al Najjar, "World financial crisis and cybercrime, Journal of Baghdad College of Economic Sciences University", Vol. 20, No. 1, 2009.
46. Rami Matarneh, Fayez Al Najjar. World financial crisis and cybercrime, Conference: world finical crises and its impact on the economies of developing countries, Opportunities and challenges, 2009.
47. Bashar Matarneh, Adnan ALSamari and Rami Matarneh, "Agricultural Development in the Age of Trade Liberalization – What Did WeReally Get? A Case Study of Jordan", Middle Eastern Finance and Economics, Issue 5, 2009.
48. Bashar Matarneh, Adnan ALSamari, Walid Safi and Rami Matarneh, "New Financial Analysis Approach Using Instrumental Variables for Measuring the Effect of Remittances With Respect to Labour Migration, Workers' Remittances and Economic Activity", International Research Journal of Finance and Economics Issue 43, 2010.
49. Al Matarneh R .J. Krivulia (1. K. Shkil A. C Quantitative evaluations of digital systems testabilily on circuit technique level // Radio Electronics and Information Science – 1998 - No 4 - P 77-81.
50. Al Matarneh R. J., Dubinskava N. G. Quantitative parameters of ET diagnosability at structural level // Informational - Controlling systems on railway transport - 1998 - No.6 - P.60-63.
51. Al Matarneh R. J., Krivulia G. Expert systems using fuzzy logic // Radio Electronics and Information Science.-1998 - No. 1 (02) - P. 53-56.
52. Al Matarneh R. J., Krivulia G. F., Hahanov V. I., Multi-valued models of digital systems // Work of international conference Mathematical modeling and information technologies Volume 8. - Belgorod.- 1998 - P 72-79.

53. Matarneh R. J., Hahanov V. I., Krivulia G. F. Multi-valued models of digital circuits // Proc. International conf. Mathematical modeling and information technologies MMIT-97. Vol. 1. Belgorod - (Russia) - 1997 - P 15 -16.

## **UNDER PROCESSING**

1. ABIDF An Integrated AI-Blockchain Framework for Securing Web 4.0 Applications
2. The Rising Tide of Social Engineering: Trends, Impacts, and Multi-Layered Mitigation Strategies
3. A Synthetic Data-Driven ML Framework for Real-Time Social Engineering Attack Detection in Cybersecurity
4. QR-DEF: A Quantum-Resistant Hybrid Encryption Framework with Dynamic Entropy Fusion and Biomimetic Obfuscation
5. KTCGM: Towards A Novel Solution for Enhancing Kerberos-5 with Threshold Cryptography and ML-Based Anomaly Detection
6. Synergizing AI and Blockchain for Cybersecurity in Web 4.0: Defense Against SQLi, Adversarial Attacks, and IoT Spoofing
7. AI model for Industrial Robots Actuators
8. Skin diseases diagnose depending on smart contrast modification and contour detection using wavelet analysis methodology
9. The Future of Robotics Surgeries: A Comparative Review of Conventional and Remote Surgical Robotic Units
10. Bio Inspired approach for cluster head selection to improve lifetime of WSN assisted IOT network
11. Applications of Three-Dimensional Printing Strategies in Human Medical Treatment: A Performance Analysis
12. Factors Influencing Students' Intention to Use Generative AI Tools
13. and Their Impact on Academic Achievement using SEM and ML models
14. Quantum Cryptography Approaches, Models, Techniques and Applications: A Review

## **Books:**

Encryption Algorithms in Computer Security System.