

Curriculum Vitae

Professor Mohammad Ahmad Mohammad Al-Fayoumi (*Ph.D.*)



**Dean of Scientific Research & Graduate
Studies**

**AL_ISRA UNIVERSITY
AMMAN JORDAN**

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G.specialization :

**Software/Information Systems
Engineering**

S. specialization:

Software development & Security

Personal Details

Family Name : Al-Fayoumi
First Name : Mohammad Ahmad
Date of birth : Nov. 1, 1951
Gender : Male
Nationality : Jordanian
Marital status : Married
Passport Number : **K 241054**
Valid till : 03 May 2014 (JABAL ALHUSSEIN)

Academic Position

Academic Rank: Professor

In Department of Software Engineering.
Faculty of Information Technology.
AL_ISRA UNIVERSITY
AMMAN JORDAN.

Academic Dates

- **15th September 1981** **Assistant Professor / Yarmouk University, Jordan.**
- **1st march 2003** **Associate Professor/ Applied Science University, Jordan.**
- **1st September 2008** **Professor/ Middle East University for Graduate Studies, Jordan.**

Research Area

- Software Engineering , Simulation and Modeling. .
- Information Security& privacy (Security Policies, Cryptography- public key cryptography, digital signatures, identification and authentication),
- E-Application. , Systems Analysis and Design.

Academic degrees

1979 -1982

Degree : (Ph.D.) in Informatics (**Software Engineering**)
Faculty : Mathematics/ Dept. of Informatics
Institution : Bucharest University, Romania
Final Result : I have been granted the PhD degree directly without amendments
Thesis Title : **Computer Simulation Models and its Applications for Operating Systems using Queuing Theory.**

1978 – 1979

Degree : **Postgraduate Diploma** in Informatics .
Faculty : Mathematics/ Dept. of Computing.
Institution : Bucharest University, Romania.
Sponsor : UNESCO.
Period : From 15, September 1978 until 15 Sept. 1979(12 Months).
Thesis Title : **Computer Simulation Models.**

1975-1977

Degree : (M.Sc.) Master in Mathematics
Faculty : Science/Department of Mathematics
Institution : Jordan University, Jordan
Final mark : Very Good average grade
Conclusion : July 1977

1971-1975

Degree : (B.Sc.) Bachelor of Mathematics
Faculty : Science/Department of Mathematics
Institution : Jordan University, Jordan Amman
Final mark : **Very Good** average grade
Conclusion : July 1975

Training Certificate and Other Qualifications

- *One Year course in “Professional training for University Graduate Teachers in the Preparatory cycle” 1975, UNRWA/UNESCO Institute of Education, Amman, Jordan (12 months)*
- *Oracle DBA, Nov.1999,Al- mannai Training center, Doha – Qatar (5 Days).*
- *Oracle Developer, Nov.1999, Al- mannai Training center, Doha – Qatar (15 Days).*
- *Oracle Designer, Dec.1999, Al- mannai Training center, Doha – Qatar (15 Days).*
- *Oracle Portal 3.0, Nov.2001, Al- mannai Training center, Doha – Qatar (15 Days).*

Languages

Arabic : Mother tongue
English : Fluent

Professional experience

Twenty eight years of experience, after Ph.D., in teaching various topics of Computer Information Systems ,in addition to my instructional and consultation duties since **1982 up to now**.

2013 TO Date: Professor
[Dean of Scientific Research & Graduate Studies.](#)
 Department of Software Engineering (ISE).
 Faculty of Information Technology.
 AL_ISRA UNIVERSITY AMMAN JORDAN.

Saudi Arabia

2011-2013: Professor
 Department of Information Systems Engineering (ISE).
 Faculty of Computer and Information Systems
 Umm Al-Qura University Makkah,
 Saudi Arabia

2009-2011: Professor
 Department of Information Systems (IS).
 Faculty of Computing and IT
 King Abdulaziz University, KSA

- 2008-2009:** Professor
Dean of IT Faculty
Chairman of Computer Information Systems Department
Middle East University for Graduate Studies, Amman-Jordan
- 2005-2008:** Associate Professor
Dean of IT Faculty
Chairman of Computer Information Systems Department
Middle East University for Graduate Studies, Amman-Jordan
- 2003-2005:** Associate Professor
Computer Science Department,
Faculty of Computer & IT
Applied Science University, Amman-Jordan
- 1997-2003:** Director of Information and Documentation Center
Institute of Administrative Development, Doha-Qatar
- 1991-1997:** Assistant Professor
Chairman of CS and CIS Department
Faculty of Science,
Applied Science University, Amman- Jordan
- June 1996- Sept.1996:** Consultant Expert / AMIDEAST
Develop Information Systems (Analysis and Design Specifications) for the Ministry of Education.
Training and Qualifying Sector
Republic of Yemen
- 1990-1991:** Assistant Professor
Acting Dean and Chairman of Technology & Applied Science Program
Al-Quads Open University, Amman-Jordan
- 1986-1990:** Assistance Professor and Consultant for Education and Training in the field of IT.
The Public Authority For Applied Education & Training (PAAET)
Faculty of Business Studies, Kuwait
- 1982-1986:** Assistant Professor
Chairman of Computer Science Determent
Faculty of Science, Yarmuk University, Irbid Jordan

Courses Taught for Postgraduate Programs

- *Software Engineering*
- *Modeling & Simulation*
- *Information Security and Privacy*

- *Information Systems*
- *Systems Development*
- *Decision Support Systems*
- *Project Management*
- *Research Seminar (How to write Article and Thesis in IT)*
- *Advanced topics in Operational Research(OR)*

Courses Taught for Undergraduate

- *Programming Languages with Java, C & C++, Visual Basic, Pascal FORTRAN, COBOL.*
- *Computer Skills I and II*
- *Algorithms : Analysis and Design*
- *IS Analysis and Design*
- *Data Structures*
- *Software Engineering*
- *Software Requirements*
- *Modeling and Simulation*
- *Theory of computations*
- *Operational Research*
- *Information Security*
- *Project Management*
- *DSS(Decision Support Systems)*
- *Discrete Structures(MATHEMATICS) and its applications*
- *Linear Algebra*
- *Computer Logic Design*

Technical skills

- **Programming languages:** C, C++, Basic and Visual Basic, Java, Pascal, FORTRAN.
- **Web technologies:** Front Page & HTML
- **Databases:** Oracle
- **Software:** OpenGL, Flash
- **Computing platforms:** Linux/Unix, Windows 95, 98, 2000, XP, NT

Published papers (Refereed Journals)

1. **Comparison of estimates of $P(y < x)$ in case of power Function model**, J. of the Kuwait university vol. 13, No. 2, 1986. (Reviewed).
2. **An Efficient Scheduling Algorithm for Pipelined Architecture with Multi-cycle Functional units**, DIRASAT Journal (science)/ Jordan University, Vol. 22B, No.4, 1995, (Reviewed).
3. **Computing the Autocorrelation Function of Geffe sequences**, Accepted for publication in the ALMANARA J, AL al-BAYT Univ., Jordon, 1996.
4. **Implementation of information Abstraction System with Task Maintenance**, AMSE J., Vol.31, No1, 2 France, 1997
5. **Design Methodologies for ASU Distributed computer Resource Systems**, Computer, J, NO 29, 1997, Iraq.
6. **Multiprogramming systems representation on a single-mach me Using Simulation** AMSE, VOL.3, No.1, 2, 1999, France
7. Behavior of Predator-prey Interactions; A Simulation Study, Systems Analyses Modeling Simulation (SAMS) J., VOL 32, 1998, USA
8. **Blind Decryption and Privacy Protection**; American Journal of Applied Science 2 (4), pp. 873-876, 2005, Science Publication, U.S.A
9. **An Efficient Concept in Digital Signature Schemes using Computational Delegation"**, International Journal of WSEAS TRANSACTIONS ON COMPUTER RESEARCH, Issue 1, Volume 1, November 2006, pp. 25-30
10. **A Secure Signature Scheme with a Broadband Covert Channel**: International Journal of WSEAS TRANSACTIONS ON COMPUTERS, Issue 2, Volume 6, February 2007, pp. 367-372.
11. **A New Multisignature Scheme Using Re-encryption Technique**; Journal of Applied Sciences, V7 (13), pp.1813-1817, ASIAN Network for Scientific Information, Pakistan, 2007
12. **Identity Authentication and Key Agreement Schemes for Ad Hoc Networks**; Journal of Applied Sciences, V7 (12), pp.1638-1642, ASIAN Network for Scientific Information, Pakistan, 2007
13. **Anonymous and Non-Repudiation E-Payment Protocol**; American Journal of Applied Sciences 4 (8), pp. 538-542, 2007, U.S.A

14. **A Secure Signature Scheme with a Broadband Covert Channel**, International Journal of WSEAS TRANSACTIONS ON COMPUTERS, Issue 2, Volume 6, February 2007, pp. 367-372. Greece.
15. **A New Multisignature Scheme Using Re-encryption Technique**, Journal of Applied Sciences, Journal of Applied Sciences, **7(13) 2007**, ASIAN Network for Scientific Information, Pakistan
16. **Identity Authentication and Key Agreement Schemes for Ad Hoc Networks**, Journal of Applied Sciences, **7(12) 2007**, ASIAN Network for Scientific Information, Pakistan
17. **Anonymous and Non-Repudiation E-Payment Protocol**", American Journal of Applied Sciences, 4(8): PP 538-542, 2007, USA.
18. **Simulating Targeted Attacks Using Research Honeypots Based on Ant Colony Metapho**, European Journal of Scientific Research. Vol. 17 No. 4, pp.509-522, Austria, 2007
19. **Development of Computer Simulation of Wavelet Selection Technique for Time-Frequency Analysis**, European Journal of Scientific Research, Vol. 17 No. 1, Austria, 2007
20. **Secure Mobile Trade Agent**", Journal of Computer Science, V 3(5): PP 329-334, 2007, USA.
21. **A Different Text Attack Algorithm in Integer Factoring Based Schemes**, Journal of Computer Science, V3(6): PP 406-409, 2007, USA.
22. **An Efficient Designated Receiver Signature Scheme**, International Review on Computers and Software, V 1(2), PP. 366-370 July 2007, Italy
- 23. Secure E-Test Scheme**, International Journal of Emerging Technologies in Learning 2(4), Austria, 2007.
24. **Efficient Method For Breaking RSA Scheme**, Ubiquitous Computing and Communication Journal, Special issue on New Technology, Mobility & Security. V:NTMS, 6-1-2009.
25. **A Secure Designated Signature Scheme**", Georgian Electronic Scientific Journal: **Computer Science and Telecommunications**, 2009 No .2(19).
26. **A New Digital Signature Scheme Based on Integer Factoring and Discrete Logarithm Problem**, published in International Journal of Computer and Their Application (IJCA), Vol. 17, No. 2: 1-8, June 2010.
27. **A Secure Software Piracy Prevention Scheme**, E-Britain journal , Issue 5, March 2010.
28. **Evaluation of Different Query Expansion Techniques and using Different Similarity Measures in Arabic Documents**, European

Journal of Scientific Research., Austria, 2010, ISSN 1450-216X Vol.43 No.1 (2010), pp.156-166 .

29. **Practical E-Payment Schema** , IJCS I (International Journal of Computer Science Issues) Volume 7, Issue 3 May 2010 USA. ISSN (Online): 1694-0784, ISSN (Print): 1694-0814.
30. **A proposed Ontology to support Modeling Diagrams,** , IJCSI (International Journal of Computer Science Issues) Volume 7, Issue 5, September 2010 USA. ISSN (Online): 1694-0784, ISSN (Print): 1694-0814.
31. **Nested Hybrid Ant Colony Algorithm For Solving Traveling Salesman Problem,** European Journal of Scientific Research, Vol. ---No. ----, Austria, 2012 (ACCEPTED).
32. **Efficient Threshold Signature Scheme ,IJACSA(International Journal of Advanced Computer Science and Applications (ISI)),** Vol.3,No.1,2012.
33. **A Corpus based Approach to Find Similar Keywords for Search Engine Marketing** ,has been conditionally accepted for publication in IAJIT (the International Arab Journal of Information Technology ISI) Vol. 10,No.5, September 2013.
34. **Transforming UML state machine diagram to High Level PetriNet using genetic Algorithm ,(submitted) 2013-2014**

Published Papers (Refereed Conferences)

35. Estimate of $P(y < x)$ in case of double exponential distribution, Proceedings of the seventh conference on Probability theory and operations research, Aug.29-Sept.4,1982,Brashov-Romania.(Reviewed)
36. Simulation of central server model of multiprogramming, were presented at the First symposium on computer and Information Systems, March 23-26, 1985 Yarmouk University, Irbid, Jordan.
37. Instruction Set Optimization Algorithm Based on Branch-and-Bound Method, Has been accepted for Presentation at 1995 International conference on Electronics, Circuits and Systems (ICECS 95), Dec.17-21,1995,Amman-Jordon, organized by IEEE and Higher council for science and Technology
38. Computer AIDED DESTGN (CAD) Models for Examination System in Higher Education, Has been Reviewed and Accepted for presentation at the

- 17th polish Symposium on Economies and computer science, April 26-28, 1995, Zokopane, POLAND
39. Structure and Implementation of INTERNET in Arab ward Survey. International conference on Educational computing (EDUCOMP 97 conference) Bangkok Thailand, 1997 .
 40. Two Efficient RSA Digital Multi-signature and Blind Multi-signature Schemes; IASTED International Conference on Computational Intelligence (CI 2005), July 04 – 06 2005, Calgary, Canada
 41. A New Idea on Digital Signature Schemes; the WSEAS Multi-Conference in Venice, the 5th WSEAS International Conference on INFORMATION SECURITY and PRIVACY (ISP '06), November 20 - 22 October 2006, Italy
 42. An Efficient Covert Channel; the WSEAS Multi-Conference in Bucharest, Romania (5th WSEAS International Conference on DATA NETWORKS, COMMUNICATIONS and COMPUTERS (DNCOCO '06), 16 - 18 October 2006.
 43. Classification rule Extraction Approach based on Homogeneous Training Samples” 19th International Conference on Computer Applications in Industry and Engineering (19th ICCAIE), Las Vegas, USA, pp108-113, November 13 – 15, 2006.
 44. OptiTest: Optimizing Test Case Using Hybrid Intelligence" WCE 2007: 2-4 JULY, 2007, pp.43-48, LONDON.
 45. Neural Network Classifier Approach for Distributed Databases, ISCA 20th International Conference on Computer Applications, November 7-9, 2007, USA
 46. An Efficient Method for Factoring Rabin Scheme, International Arab Conference on Information Technology ACIT2007, P-26-28 November, 2007
 47. An Efficient RSA Public Key Encryption Scheme, Fifth International Conference on Information Technology: New Generations (ITNG 2008), 7-9 April 2008, Las Vegas, Nevada, USA, pp. 127-130.
 48. Protection of e-commerce Using Hybrid Tools, The International Conference on Information Technology (ICIT'2009) which will be held at Al-Zaytoonah University, Jordan on June 3-5, 2009.
 49. An Efficient Method for Attack RSA Scheme, The Second International Conference on the Applications of Digital Information and Web Technologies (ICADIWT 2009) , August, 4 – 6, 2009, London-UK.
 50. Analysis of Social Network Using Clever AntColony Metaphor, Proceedings of World Academy Of Science, Engineering And Technology VOL. 41, May 2009 ISSN: 2070-3740.

51. Efficient E-Payment Protocol Using Hash Chain, EMCIS 2010, Proceeding of Accepted Refereed Papers C[15] , 12-13 April , Abu Dhabi ,ISBN:978-1-902316-80-2.
52. **Web Query Reformulation Using Differential Evolution**, International conf. on Industrial engineering & other Applications of Applied Intelligent Systems, IEA/AIE 2010, Part II, LNAI 6097, pp. 484–493, 2010.Springer-Verlag Berlin Heidelberg 2010
53. **Ontology Concepts for Requirements Engineering Process in E-Government Applications**. has been accepted at The Fifth International Conference on Internet and Web Applications and Services ICIW 2010 ,May9 9- 15, 2010 - Barcelona, Spain, as regular paper
54. **Problems with Three-Party Password_typed Authentication Key Agreement Scheme**, has been accepted for publication in the Conference Proceedings at the ISCA 1st First International Conference on Advanced Computing and Communications (ACC-2010), September 15 - 17 , 2010, at The Florida Hotel and Conference Center at the Florida Mall, Orlando, Florida, USA.
55. Content Analysis based on Text Mining using Genetic Algorithm , has been accepted for publication in the Conference Proceedings at the 2nd International Conference on Computer Technology and Development (ICCTD 2010) , November 2-4, 2010, Cairo, Egypt.
56. **PROXY SIGNATURE SCHEME FOR WARRANT PARTIAL DELEGATION**
The International Conference on Computing, Networking and Digital Technologies Gulf University, Bahrain Nov. 11-13, 2012
57. Solution of Traveling Salesman Problem using Hybrid Ant Colony Algorithm, 2012 International Conference of Information Science and Computer Applications (ICISCA 2012) that will be held in Bali Indonesia from 19 -20 November 2012.

Chapter in Book

1. Sattar J Aboud, Mohammad AL-Fayoumi, Mohamed Alnuaimi, **Verification and Validation of Simulation Models, Handbook of Research on Discrete Event Simulation: Technologies and Applications** www.igi-pub.com, Under publication, 2009.

Published Books

1. BASIC, FORTRN, COBOL
2. PASCAL, C++
3. SYSTEMS Analysis
4. Data Structure
5. File processing.
6. Operation research
7. Discrete Mathematics for computer science..
8. Mathematics 1, 2 and Linear Algebra

(3)Titles of Supervised Thesis for M.Sc. Degree
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	<i>Thesis Title</i>	<i>Student Name</i>	<i>Started date</i>	<i>Finished Date</i>
1	<i>A Model for Designing Mobile Learning content Design</i>	<i>Zaina Abdel Hamid Hamdan</i>	<i>8-7-2007</i>	<i>17-2-2008</i>
2	<i>Towards An Ontological for Software Quality Attributes</i>	<i>Ahmad Samhan</i>	<i>10-6-2007</i>	<i>21-5-2008</i>
3	<i>A Decision support System for E-Banking Adoption in Jordan : A Critical Success Factors Perspective.</i>	<i>Mohammad AbuKhadegeh</i>	<i>10 -2-2007</i>	<i>9-6-2008</i>
4	<i>Precluding Soft ware Piracy Using Asymmetric Cryptography</i>	<i>Zeana Sattar Aboud</i>	<i>19-7-2008</i>	<i>3-2-2008</i>
5	<i>Design and Implementation of Mobile Learning Content Model</i>	<i>Eman AL-Karadsheh</i>	<i>5-5-2008</i>	<i>19-1-2009</i>
6	<i>An approach to Better Web Change Detection using an Integrated Frequency-based Greedy Sampling Policy</i>	<i>Saker aboqaod</i>	<i>26-5-2008</i>	<i>4-2-2009</i>
7	<i>Design Effective Anti Money laundering Infrastructure</i>	<i>Kamel A.A. AL-Mahameed</i>	<i>27-5-2008</i>	<i>12 -6-2009</i>
8	<i>Deriving System Models Using Business Process Models</i>	<i>ahmad ghazal</i>	<i>7-6-2008</i>	<i>24-8-2009</i>
9	<i>Distributed DB in News Websits</i>	<i>Wael AL-Murafi</i>	<i>10-8-2008</i>	<i>31-5-2009</i>
10	<i>Towards an Ontological Foundation for Supporting the Requirement Process in E-Government Application</i>	<i>mohammad nizar</i>	<i>16-8-2008</i>	<i>24-8-2009</i>

11	<i>Usability Study for E-Content Design in Education.</i>	rasha jaafreh	27-5-2008	24-5-2009
12	<i>Mobil CRM and GPS-MCRM Integration Technique</i>	Maram Ayoub	10-2-2008	1-6-2009
13	<i>Mobil Trade Agent Security</i>	shaima saeed	10-2-2008	15-8-2009

Reviewing

I reviewed many Articles /papers for refereed Journals and also many books in the fields of computer science, Mathematics and Operation research.

Academic Activities & Services: University Committees

- *Member of the Foundation Committee, the Middle East University, Amman-Jordan, 2005-2007.*
- *Member of different committees, the Middle East University, Amman-Jordan.*
- *Curriculum Evaluation and Development for Middle East University*
- *Curriculum Evaluation and Development for Applied Science University (ASU)*
- *Member, University Council, Middle East University, 2005-2008*

Academic Activities & Services Faculty & Department Comm.

- *Member of the Board, Faculty of Science, University of Yarmouk Irbed - Jordan, 1982 -1985.*
- *Member, Faculty Council (Computer & Information Technology), 2001/2002*
- *Dean of the Information Technology Faculty, 2005-2009*
- *Chairman of the Board of Computer Science and Information Systems Department, Yarmouk university, Applied Science University and MEU.*
- *Curriculum Committee, Coordinator*
- *Research Committee, Coordinator*
- *Seminars Committee, Coordinator*
- *Laboratories Committee, Coordinator*
- *Training Committee, Coordinator*
- *Tenders Committee, Coordinator*
- *Appointment Committee, Coordinator*

- *Social Affairs Committee, Coordinator*
- *Graduate Studies Committee, Member*
- *Commission Committee, Coordinator*
- *Department Website Committee, Designer*
- *Students Affairs Committee, Member*
- *Students Advisory Committee, Member*