

CURRICULUM VITAE

Mohammad Abdel Rahman Bsoul

Work Address:

The Hashemite University
Faculty of Prince Al Hussein Bin Abdullah II for Information
Technology
Dept. of Computer Science and Applications
P. O. Box 150459, Zarqa 13115, Jordan
Office (Tel) +962 (05) 3903333, ext. 4573
E-mail: mbsoul@hu.edu.jo

Personal Record:

Name	Prof. Mohammad Abdel Rahman Bsoul
Date of Birth	Oct. 13 th , 1980
Sex	Male
Nationality	Jordanian

Qualifications:

July 2007	Ph.D. in Computer Science, Loughborough University, UK Title of Thesis “Economic scheduling in Grid computing using Tender model”
January 2004	M.Sc. in Networking, University of Western Sydney, Australia
October 2002	B.Sc. in Computer Science, Jordan University of Science and Technology

Experience:

May. 2018 -
Present

Full professor
Dept. of Computer Science and Applications.

The Hashemite University

Zarqa – Jordan

Mar. 2013 -
Apr. 2018

Associate professor
Dept. of Computer Science and Applications.

The Hashemite University

Zarqa – Jordan

Sept. 2011 –
Aug. 2013

Head of Computer Science and Applications
Department

Sept. 2007 -
Feb. 2013

Assistant professor
Dept. of Computer Science and Applications.

The Hashemite University

Zarqa – Jordan

Courses Taught

Computer networks

Advanced computer networks

Internet protocols

Object oriented programming (1)

Object oriented programming (2)

Computer skills (2) / Scientific

Special topics in computer information systems

Funding

6880 JD Co-applicants Dr. Emad E. Abdallah, Dr. Mohammad Bsoul, and Dr. Ahmad Khasawneh, Deanship of scientific Research - Hashemite University - new researchers' start-up program (Sept. 2010 - Mar. 2012) Topic: 3-D Mesh Fingerprinting - Develop and evaluate an identification and authentication system for 3-D polygonal models.

35,000.00 JD Co-applicants Dr. Alaa E. Abdallah, Dr. Emad E. Abdallah, Dr. Mohammad Bsoul, and Dr. Ahmad Khasawneh, Deanship of scientific Research fund- Hashemite University - (Sept. 2013 - Sept. 2015) Topic: Enhanced Ant Colony Routing Algorithms for Mobile Ad-Hoc Networks.

Head of

Library committee (2007-2008)
Examination committee (2008-2010)
Labs committee (2008-2011)
Microsoft academy committee (2011)
Study Plan and Accreditation Committee (2011-2012)
Promotion and Hiring Committee (2014-2015, 2016-2017)
Quality assurance committee (2014-2015)
Scientific research committee (2011-2012, 2013-2014, 2014-2015)
ABET American accreditation committee - Student outcomes (2017)

Member of

University council (2012-2013)
University research council (2014-2015)

Referee for The computer journal (Oxford journals)
International journal of communication systems (Wiley)
Journal of grid computing (Springer)
Journal of wireless personal communications (Springer)
Journal of wireless networks (Springer)
Journal of information sciences (Elsevier)
Journal of networks and computer applications (Elsevier)
Journal of ad hoc networks (Elsevier)
International journal of electronics and communications (Elsevier)
International journal of distributed sensor networks (SAGE)
IEEE systems journal (IEEE)
Journal of Parallel and Distributed Computing (Elsevier)
The Journal of Supercomputing (Springer)

Research Interests Grid computing
Cloud computing
Network security
Computer networks
Computer systems
Wireless Sensor Networks
Performance evaluation

Journal Publications [1] A. Khasawneh and M. Bsoul, "Resource allocation strategies for the economic computational grid," International Journal of Networking and Virtual Organisations, vol. 6, no. 5, pp. 532–540, 2009.

[2] A. Khasawneh, I. AlAzzam, and M. Bsoul, "A study on e-commerce security in Jordan," International Journal of Electronic Finance, vol. 3, no. 2, pp. 166–176, 2009.

[3] A. Khasawneh and M. Bsoul, "Job scheduling in economic grid environments," International Journal of Information and Communication Technology, vol. 2, no. 3, pp. 220–227, 2010.

[4] A. Khasawneh, M. Bsoul, and I. AlAzzam, "Looking beyond technology: a study of e-commerce trust perception by Jordanian customers," *International Journal of Management and Enterprise Development*, vol. 8, no. 2, pp. 175–183, 2010.

[5] A. Khasawneh, M. Bsoul, I. Obeidat, and I. AlAzzam, "Technology fears: A study of e-commerce loyalty perception by Jordanian customers," *International Journal of Information Systems in the Service Sector*, vol. 2, no. 2, pp. 70–77, 2010.

[6] M. Bsoul, A. Al-Khasawneh, Y. Kilani, and I. Obeidat, "A threshold-based dynamic data replication strategy," *The Journal of Supercomputing*, vol. 60, no. 3, pp. 301–310, 2012.

[7] M. Bsoul, A. Al-Khasawneh, E. E. Abdallah, and Y. Kilani, "Enhanced fast spread replication strategy for data grid," *Journal of Network and Computer Applications*, vol. 34, no. 2, pp. 575–580, March 2011.

[8] T. Alhmiedat, A. A. Taleb, and M. Bsoul, "A study on threats detection and tracking systems for military applications using WSNs," *International Journal of Computer Applications*, vol. 40, no. 15, pp. 12–18, 2012.

[9] Y. Kilani, M. Bsoul, I. Obeidat, and M. Al-Rababaa, "Islandsat," *International Journal of Advanced Intelligence Paradigms*, vol. 4, no. 3/4, pp. 278–298, 2012.

[10] A. Al-Khasawneh, M. Khasawneh, M. Bsoul, S. Idwan, and A. Turan, "Models for using internet technology to support flexible e-learning," *International Journal of Management in Education*, vol. 7, no. 1/2, pp. 61–70, 2013.

[11] M. Bsoul, A. Al-Khasawneh, A. E. Abdallah, E. E. Abdallah, and I. Obeidat, "An energy-efficient threshold-based clustering protocol for wireless sensor networks," *Journal of Wireless Personal Communications*, vol. 70, no. 1, pp. 99–112, 2013.

[12] E. E. Abdallah, A. E. Abdallah, A. Al-Khasawneh, M. Bsoul, and A. Alsarhan, "Secure local algorithm for establishing a virtual backbone in 3d ad hoc network," *International Journal of Networking and Virtual Organisations*, vol. 12, no. 1, pp. 70–83, 2013.

[13] A. Alsarhan, A. Agarwal, M. Bsoul, I. Obeidat, A. Al-Khasawneh, and Y. Kilani, "Optimal spectrum utilization in cognitive network using combined spectrum sharing approach: Overlay, underlay and trading," *International Journal of Business Information Systems*, vol. 12, no. 4, pp. 423–454, 2013.

[14] M. Bsoul, I. Phillips, C. Hinde, and A. Alsarhan, "Evaluating economic-based entity strategies for the computational grid," *International Journal of Business Information Systems*, vol. 13, no. 2, pp. 235–264, 2013.

[15] E. E. Abdallah, A. E. Abdallah, M. Bsoul, A. F. Ootom, and E. Al-Daoud, "Simplified features for email authorship identification," *International Journal of Security and Networks*, vol. 8, no. 2, pp. 72–81, 2013.

[16] Y. Kilani, M. Bsoul, A. Alsarhan, and A. Al-Khasawneh, "A survey of the satisfiability-problems solving algorithms," *International Journal of Advanced Intelligence Paradigms*, vol. 5, no. 3, pp. 233–256, 2013.

[17] I. Obeidat, A. Al-Khasawneh, M. Bsoul, and Y. Kilani, "Toward power consumption in wireless sensor networks routing technique," *International Journal of Networking and Virtual Organisations*, vol. 12, no. 3, pp. 238–250, 2013.

- [18] A. Alsarhan, A. Al-Khasawneh, A. Itradat, and M. Bsoul, "Economic model for routing and spectrum management in cognitive wireless mesh network," *International Journal of Networking and Virtual Organisations*, vol. 12, no. 4, pp. 331–351, 2013.
- [19] I. Obeidat, A. Al-Khasawneh, M. Bsoul, , and A. Alsarhan, "Computer based clinical decision support system for hepatitis disease diagnosis," *International Journal of Advancements in Computing Technology*, vol. 5, no. 14, pp. 15–23, 2013.
- [20] A. Alsarhan, A. Al-Khasawneh, A. Itradat, I. Obeidat, and M. Bsoul, "Spectrum trading for routing in a multi service cognitive mesh network," *International Journal of Mobile Network Design and Innovation*, vol. 5, no. 2, pp. 85–96, 2013.
- [21] M. Hammad, M. Hammad, and M. Bsoul, "An approach to automatically enforce object-oriented constraints," *International Journal of Computer Applications in Technology*, vol. 49, no. 1, pp. 50–59, 2014.
- [22] M. Hammad, M. Hammad, A. F. Otoom, and M. Bsoul, "Detecting breaks in design patterns from code changes," *Journal of software*, vol. 9, no. 6, pp. 1485–1493, 2014.
- [23] A. Abdallah, M. Bsoul, E. Abdallah, I. Al-Oqily, and G. Kao, "Cluster-based online routing protocols for ad hoc network," *International Journal of Information Technology and Web Engineering*, vol. 9, no. 4, pp. 54–66, 2014.
- [24] A. Otoom, E. Abdallah, M. Hammad, M. Bsoul, and A. Abdallah, "An intelligent system for author attribution based on a hybrid feature set," *International Journal of Advanced Intelligence Paradigms*, vol. 6, no. 4, pp. 328–345, 2014.

[25] M. Bsoul, A. Alsarhan, A. Otoom, M. Hammad, and A. Al-Khasawneh, "A dynamic replication strategy based on categorization for data grid," *Multiagent and Grid Systems*, vol. 10, no. 2, pp. 109–118, 2014.

[26] A. Abdallah, E. Abdallah, M. Bsoul, A. Al-Khasawneh, and L. Amer, "A blind 3d watermarking technique using spherical coordinates and skewness measure," *International Journal of Security and Networks*, vol. 10, no. 1, pp. 1–8, 2015.

[27] M. Bsoul, Y. Kilani, M. Hammad, E. Abdallah, and A. Alsarhan, "An index-based approach for wireless sensor networks," *Wireless Personal Communications*, vol. 82, no. 4, pp. 2185–2197, 2015.

[28] A. Alsarhan, A. Quttoum, and M. Bsoul, "Dynamic auction for revenue maximization in spectrum market," *Wireless Personal Communications*, vol. 83, no. 2, pp. 1405–1423, 2015.

[29] M. Bsoul, A. E. Abdallah, K. Almakadmeh, and N. Tahat, "A round-based data replication strategy," *IEEE Transactions on Parallel and Distributed Systems*, vol. 27, no. 1, pp. 31–39, 2016.

[30] A. E. Abdallah, E. E. Abdallah, M. Bsoul, and A. F. Otoom, "Randomized geographic-based routing with nearly guaranteed delivery for three-dimensional ad hoc network," *International journal of distributed sensor networks*, vol. 12, no. 10, 2016.

[31] M. Bsoul, A. F. Otoom, A. E. Abdallah, and N. Hamadneh, "An enhanced bandwidth hierarchy based replication strategy for dynamic replication in data grid," *Multiagent and Grid Systems*, vol. 13, no. 2, pp. 163–175, 2017.

[32] M. Bsoul, "A Differential Indexing Approach for Wireless Sensor Networks," *Wireless Personal Communications*, vol. 97, no. 2, pp. 2649–2663, 2017.

[33] A. Alsarhan, A. Y. Al-Dubai, G. Min, A. Y. Zomaya, and M. Bsoul, "A new spectrum management scheme for road safety in smart cities," *IEEE Transactions on Intelligent Transportation Systems*, vol. 19, no. 11, pp. 3496–3506, 2018.

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[37] M. Hammad, M. Bsoul, M. Hammad, and M. Al-Hawawreh, "An efficient approach for representing and sending data in wireless sensor networks," *Journal of communications*, vol. 14, no. 2, pp. 104–109, 2019.

[38] Emad E. Abdallah, Ahmed Fawzi Otoom, Alaa E. Abdallah, Mohammad Bsoul & Sari Awwad (2019): A Hybrid Secure Watermarking Scheme Using Nonnegative Matrix Factorization and FastWalsh-Hadamard Transform, *Journal of Applied Security Research*, DOI: 10.1080/19361610.2019.1624100

Conference Publications

[1] M. Bsoul, I. Phillips, and C. Hinde, "A framework for economic scheduling in grid computing using tender/contract-net model," in 7th Annual Postgraduate Symposium on the Convergence of Telecommunications, Networking and Broadcasting, Liverpool, England, 2006.

[2] M. Bsoul, "A framework for replication in data grid," in 8th IEEE International Conference on Networking, Sensing and Control, Delft, the Netherlands, 2011, pp. 234–236.

[3] A. Abdallah, M. Bsoul, E. Abdallah, A. Al-Khasawneh, and M. Alzghool, "Local algorithm for establishing a virtual backbone in 3d ad hoc network," in International Conference on Information Technology, Madrid, Spain, 2012, pp. 18–22.

[4] Y. Kilani, M. Bsoul, A. Alsarahan, and I. Obeidat, "Improving paws by the island confinement method," in 11th International Conference on Artificial Intelligence and Soft Computing, Zakopane, Poland, 2012, pp. 662–670.

[5] I. Obeidat, M. Bsoul, A. Khasawneh, , and Y. Kilani, "Enhancing the connectedness in ad-hoc mesh networks using the terranet technology," in International Conference on Electrical, Computer, Electronics and Communication Engineering, Venice, Italy, 2012, pp. 607–609.

[6] M. Bsoul, I. Phillips, and C. Hinde, "MICOSim: A simulator for modelling economic scheduling in grid computing," in International Conference on Signal Processing, Paris, France, 2012, pp. 1633–1636.

[7] M. Bsoul, E. E. Abdallah, Q. Saif, I. Albarghouthi, M. Albeddawi, and E. Qaddurah, “Gitstud: A web-based application for sharing project files,” in The Eleventh International Conference on Systems and Networks Communications, Rome, Italy, 2016, pp. 20–23.

Book Chapter Y. Kilani, A. Alsarhan, M. Bsoul, and A. Otoom, “Local search algorithms for solving the combinatorial optimization and constraint satisfaction problems,” in *Soft Computing Applications*, ser. *Advances in Intelligent Systems and Computing*, V. Balas, L. Jain, and B. Kovacevic, Eds. Springer International Publishing, 2015, pp. 199–211.

References Available upon request