

Ala Hamarsheh

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Education

- **PhD in Engineering Sciences** //2009-2012//
Protocol Engineering in Computer Networks
PhD Title: Breaking the Deadlocks for Transition to IPv6
Vrije Universiteit Brussel, Brussels – Belgium.
- **Master Degree in Computer Science** //2001-2003//
University of Jordan, Amman - Jordan.
- **B.Sc. in Computer Science** //1996-2000//
Birzeit University, Ramallah - Palestine.

Objective

To have a profession that will enhance my knowledge, as well as seek a better financial and experience positions in new opened horizons. Moreover, applying the knowledge I had gain into a very useful media.

Languages

Fluency in verbal and writing in both English and Arabic.

Work Experience

- ☀ **The Arab American University** 2012 – Present
Jenin – Palestine
Full-time Associate Professor at the Faculty of Information Technology of the Arab American University of Jenin, AAUJ.
 - ❖ Mentored students to achieve their academic goals.
 - ❖ Drafted examination papers and evaluated student's assignments and classwork.
 - ❖ Maintained records of student's progress.
 - ❖ Informed students regarding attendance and academic policies.
 - ❖ Planned class schedules and maintained daily lesson plans.
 - ❖ Assisted in curriculum revision and academic planning activities.
 - ❖ Addressed teaching and research issues.
 - ❖ Participated in university events and educational committee.
- ☀ **Vrije Universiteit Brussel (VUB)** 2011 – 2012
Brussels – Belgium
PhD researcher.
- ☀ **The Arab American University** 2003 – 2009
Jenin – Palestine
Full-time instructor at the Department of Management Information Systems of the Arab American University of Jenin, AAUJ.

☀ **The University of Jordan** 2001 – 2003
Amman, Jordan

Teacher Assistant and Lab Technician

- ❖ Devising lab courses together with the supervising professor.
- ❖ Coordinating, persuing and supervising projects given to student as a part of the academic process.
- ❖ Ugerly assisting students/professors in their scientific research.
- ❖ Supporting professors through providing presentation and computerized materials necessary for the success of their classes.

☀ **Galaxy Information Systems** 2000 – 2001
Ramallah, Palestine

Java Programmer & Web Developer

- ❖ Java Programmer and Trainer.
- ❖ Web Design and Programming (Using JSF, ASP, Servlets, DHTML, ...Etc).

Academic Positions

- ☀ Acting VP for academic affairs, from September 2016 to August 2017.
- ☀ Assistant of VP for academic affairs, from September 2015 to August 2016.
- ☀ President's assistant for IT affairs, from September 2013 to August 2014.
- ☀ Assistant of VP for academic affairs, from September 2012 to August 2015.
- ☀ Coordinator of the Management Information Systems department, from September 2004 to August 30, 2005.
- ☀ Coordinator of the Management Information Systems department, from September 2006 to August 30, 2007.

Scholarships

- ☀ Offered an Academic Staff scholarship for one month to write a PhD proposal at the Vrije Universiteit Brussel (VUB), Brussels/Belgium. The scholarship is sponsored by Erasmus Mundus University II from Feb 18, 2008 until March 19, 2008.
- ☀ Offered a full scholarship for 32 months to pursue my PhD at the Vrije Universiteit Brussel (VUB), Brussels/Belgium. The scholarship is sponsored by Erasmus Mundus University II.

Highlights of Qualifications

- Wide experience in teaching assigned subjects in University
- Sound knowledge of instructional techniques
- Exceptional knowledge of student assessment practices
- Familiarity with web technologies used for teaching purposes
- Proficient with research programs
- Ability to develop course curriculum
- Ability to teach students from diverse backgrounds
- Ability to mentor bachelor and masters level students

Skills

- Web Developer: ColdFusion, ASP, ASP.NET, VB.NET
- Java, C, C++, Pascal, FORTRAN, SQL / PL – SQL.

- Sun Certified Programmer for Java 2 Platform / Sun Microsystems.
- Very Good experience in Java Networking, Java Servlets, JavaScript, VBScript.
- Oracle Certificate By ATS Company (Develop forms & reports using Developer2000).
- Operating System: Win 9x, Win NT, Win2000, Win XP, Win 7.
- Adding to that my knowledge in the Office 2010 programs such as (MS-Word, MS-Excel, MS-Access and the MS-Power Point).

Research Interests

- Breaking the deadlocks for transition to IPv6.
- Computer Networks.
- Distributed Databases, Concurrency Control Techniques, and Mobile Transaction Processing.
- Securing the data communication via Internet, such models proposed are Steganography and Wathermarking. I have a research in Steganography of how to hide text message in another text message.
- Propose models for distributed systems like Remote Procedure Call (RPC), Group Communication, and Client Server models.
- Artificial Intelligence and Machine Learning.

Publications

<< Journal Publications >>

- Ala Hamarsheh, "Assessing the Progress of Transition to IPv6: A Global Perspective", IETE Journal of Research, 2025 (Accepted and published online) (Thomson Reuters IF: 1.5, Scopus Q2, CiteScore 3.1)
- Ala Hamarsheh, "Evaluating the Advantages and Disadvantages of Transition Technologies for IPv6 in the Context of IPv4-as-a-Service", IETE Journal of Research, Vol. 70. issue: 11, pages: 8031 - 8043, 2024. (Thomson Reuters IF: 1.5, Scopus Q2, CiteScore 3.1)
- Ala Hamarsheh, "An Adaptive Security Framework for Internet of Things Networks Leveraging SDN and Machine Learning", Applied Sciences, Vol: 14. Issue: 11, pp. 1 - 28, 2024. (Thomson Reuters IF: 2.7 Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering))
- Ala Hamarsheh, "Examining the impact of link failures and network performance on a 6to4, 6rd, CHANC and D4across6 tunneling-based networks using various routing protocols, "International Journal of Information Technology", 2024. (Accepted and published online) (Scopus Q1 CiteScore 6.0)
- Ala Hamarsheh, Ahmad Alqeerm, Iman Akour, Mohammad Alauthman, Amjad Aldweesh, Ali Mohd Ali, Ammar Almomani, Someah Alangari, "Comparative Evaluation of Host-Based Translator Mechanisms for IPv4-IPv6 Communication Performance Analysis With Different Routing Protocols", International Journal of Cloud Applications and Computing (IJCAC), Vol: 13, issue: 1, PP. 1-26, 2023. (Scopus Q2 CiteScore 6.4).
- Al-Qerem, Ahmad, Ali, Ali Mohd, Nashwan, Shadi, Alauthman, Mohamma, Hamarsheh, Ala, Nabot, Ahmad and Jibreen, Issam, "Transactional Services for Concurrent Mobile Agents over Edge/Cloud Computing-Assisted Social Internet of Things", Journal of Data and Information Quality, Vol: 15, issue: 3, PP. 1-20, 2023. (Scopus Q2 CiteScore 4.1).
- I-Qerem, Ahmad; Hammarsheh, Ala; Ali, Ali Mohd; Alslman, Yasmeen; Alauthman, Mohammad, "Using Consensus Algorithm for Blockchain

Application of Roaming Services for Mobile Network", International Journal of Advances in Soft Computing and its Applications, Vol: 15, issue: 1, PP. 99-112, 2023. (Scopus Q3 CiteScore 3.3).

- Ali, A.M.; Hassan, M.R.; al-Qerem, A.; Hamarsheh, A.; Al-Qawasmi, K.; Aljaidi, M.; Abu-Khadrah, A.; Kaiwartya, O.; Lloret, J, "Towards a Smart Environment: Optimization of WLAN Technologies to Enable Concurrent Smart Services", Sensors, 2023, Thomson Reuters IF: 3.7 Scopus Q1 CiteScore 7.3)
- Yazan W. Abdalaziz and Ala Hamarsheh, "Analyzing The Ipv6 Deployment Process In Palestine", International Journal of Computer Network and Information Security, Vol: 12, issue: 5, PP. 31-45, 2020. (Scopus Q1 CiteScore 4.1)
- Ala Hamarsheh, "Deploying IPv4-only Connectivity across Local IPv6-only Access Networks", IETE Technical Review, (**Accepted**) and will be published in **December 2018**. (Indexed in Web of Science (Thomson Reuters) SCI, Impact Factor in 2017: 1.330).
- Ahmad Al-Qerem, Ala Hamarsheh, "Statistical-Based Heuristic for Scheduling of Independent Tasks in Cloud Computing", International Journal of Communication Networks and Information Security (IJCNIS), (**Accepted**) and will be published in **August 2018** (Indexed in Scopus).
- Ahmad Al-Qerem, Ala Hamarsheh, Yasser A. Al-Lahham, Mujahed Eleyat, "Scheduling of Concurrent Transactions in Broadcasting Environment", KSII TRANSACTIONS ON INTERNET AND INFORMATION SYSTEMS VOL. 12, NO. 4, Apr. 2018. (Indexed in SCI, Impact Factor: 0.611)
- Shadi Nashwan, Ala Hamarsheh, "An Extended Approach for Enhancing Packet-Loss of inter-SGSN in 3G Mobile Networks", International Journal of Computer Network and Information Security(IJCNIS), Volume: 9, issue 11, 2017.
- Ahmad Alqerem, Ala Hamarsheh and Shadi Nashwan, "OCC-Mix Approach for Concurrent Mixture of Fixed and Mobile Transactions", Journal of Digital Information Management, vol. 15, issue 5, 2017.
- Abdallah Hamdan, Ala Hamarsheh, "AH4S An ALGORITHM OF TEXT IN TEXT STEGANOGRAPHY USING THE STRUCTURE OF OMEGA NETWORK", Security and Communication Networks, Vol. 9, issue 18, PP. 6004-6016, ISI Journal Citation Reports © Ranking: 2015: 57/82 (Telecommunications); 103/144 (Computer Science Information Systems), 2017, Impact Factor: 0.806.
- Ala Hamarsheh, "Exploiting Omega Networks to Hide Text-in-Text Messages", IJCSNS International Journal of Computer Science and Network Security, VOL.15 No.5, May 2015. (Emerging Sources Citation Index (ESCI)/Thomson Reuters Master Journal List).
- Hamarsheh A, Goossens M, "A Review: Breaking the Deadlocks for Transition to IPv6", IETE Technical Review, issue 6, vol. 31, pp. 405 - 421, published by Taylor & Francis, 2014. (Indexed in SCI, Impact Factor in 2013: 0.925).
- Hamarsheh A., Goossens M., and Al-Qerem A., "Assuring Interoperability Between Heterogeneous (IPv4/IPv6) Networks Without using Protocol Translation", *IETE Technical Review*, issue 2, vol. 29, pp. 114 - 132, published by MedKnow, 2012. (Indexed in SCI, Impact Factor in 2011: 0.724, Acceptance Rate for 2012: 12%).
- Hamarsheh A., Goossens M., and Alasem R., "Configuring Hosts to Auto-detect (IPv6, IPv6-in-IPv4, or IPv4) Network Connectivity", *KSII Transactions On Internet And Information Systems, from [Internet & Communications]*, issue 7, vol.5, n. 2, pp.1230 - 1251, published by KSII-KOR SOC Internet Information, 2011. (Indexed in SCI, Impact Factor in 2011: 0.372, Acceptance Rate: 20%).
- Hamarsheh A., and Goossens M., "Exploiting Local IPv4-only Access Networks to Deliver IPv6 Service to End-users", INTERNATIONAL JOURNAL of COMPUTERS and COMMUNICATIONS, issue 3, vol.5, pp.169 - 177, published by UNIVERSITY PRESS, 2011.

- Hamarsheh A., Goossens M., and Alasem R., "AIN-SLT: Assuring Interoperability between Heterogeneous Networks (IPv4/IPv6) Using Socket-Layer Translator", American Journal of Scientific Research, issue 15, pp.33 - 43, eds. ISSN: 1450-223X, published by EuroJournals Publishing, Inc., London, England, 2011. (Indexed in Thomson Reuters Master Journal List, Acceptance Rate: 10%).
- Hamarsheh A., Goossens M., and Alasem R., "Decoupling Application IPv4/IPv6 Operation from the Underlying IPv4/IPv6 Communication (DAC)", American Journal of Scientific Research, issue 14, pp.101 - 121, eds. ISSN: 1450-223X, published by EuroJournals Publishing, Inc., London, England, 2011. (Indexed in Thomson Reuters Master Journal List, Acceptance Rate: 10%).
- Hamarsheh A., and Goossens M., "Hosts with Any Network Connectivity Using "Bump-in-the-API"(BIA)", published by Internet Engineering Task Force (IETF), 2010.

<< Conference Publications >>

- Waleed Amer, Ola Nasir, Ala Hamarsheh, Ali Mahmoud Ali, Amani Abu Zaid, Walaa Shtayah, International Conference on Computational Intelligence Approaches and Applications (ICCIAA), "A Comparative Study of Machine Learning and Deep Learning for Disaster Prediction", April 29, 2025, Petra- Jordan, IEEE Xplore.
- Ola Nasir, Waleed Amer, Ala Hamarsheh, Ali Mahmoud Ali, Amani Abu Zaid, International Conference on Computational Intelligence Approaches and Applications (ICCIAA), "AI-Based Algorithm for Zero-Day Attack Detection Using Reinforcement Learning", April 29, 2025, Petra- Jordan, IEEE Xplore.
- Ala Hamarsheh and Yazan AbdAlaziz, "Transition to IPv6 Protocol, Where We Are", 2019 International Conference on Computer and Information Sciences (ICCIS), Sakaka, Saudi Arabia, April 03 - 04, 2019, IEEE Xplore.
- Ala Hamarsheh and Mujahed Eleyat, "Performance Analysis of AIN-PT, AIN-SLT and SIIT Network-Based Translators", Advances on P2P, Parallel, Grid, Cloud and Internet Computing Proceedings of the 12th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC-2017), Lecture Notes on Data Engineering and Communications T. Springer, Proceeding Volume: 10, Palau Macaya, Barcelona, Spain, 2017.
- Hamarsheh A. and Goossens M., " Illustrating the Impediments for Widespread Deployment of IPv6", *Proceedings of The 11th WSEAS International Conference on TELECOMMUNICATIONS and INFORMATICS (TELE-INFO `12)*, pp. 16-25, Saint Malo & Mont Saint-Michel, France, April 2-4, 2012. (Indexed in SCI).
- Hamarsheh A., Goossens M., and Alasem R., "Deploying IPv6 Service Across Local IPv4 Access Networks", *The 10th WSEAS International Conference on TELECOMMUNICATIONS and INFORMATICS (TELE-INFO `11)*, pp.94 - 100, eds. Lanzarote, Canary Islands, Spain May 27-29, 2011, published by WSEAS Press, 2011. (Indexed in SCI).

<< Book Publications >>

- Aburub, F., Alateef, S., Hamarsheh, A., & Aldweesh, A. (2025). The Role of Academic Leadership in Accelerating Smart Urban Governance. In A. Al Maqousi, A. Almomani, A. Aldweesh, & M. Alauthman (Eds.), *Revolutionizing Urban Development and Governance With Emerging Technologies* (pp. 163-188). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-1375-7.ch006>
- Alauthman, M., Alateef, S., al-Qerem, A., Hamarsheh, A., & Aldweesh, A. (2025). Building Trust in AI-Driven Urban Environments: Privacy, Accountability, and Ethical Frameworks. In A. Al Maqousi, A. Almomani, A. Aldweesh, & M. Alauthman (Eds.), *Revolutionizing Urban Development*

and Governance With Emerging Technologies (pp. 43-70). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-1375-7.ch002>

- Hamarsheh A., (2012), "Breaking the Deadlocks for Transition to IPv6", ISBN 978 90 5718 200 6, VUBPRESS UPA - University Press Antwerp, Brussels/Belgium.

Training

- ❑ Sun Certified Programmer for Java™ 2 Platform.
- ❑ Sun Certified Web Component Developer Certification for J2EE™ Platform.
- ❑ Object Oriented Principles (Java & C++).
- ❑ Advanced java Networking.
- ❑ HTML Language, FrontPage2000, Visual InterDev6.
- ❑ Developer 2000 (SQL, Forms, Reports)

Team Work

Skills gained:

- ❖ Sharing information with workmates effectively and seamlessly
- ❖ Work disciplines and code of conducts
- ❖ Time appreciation and synchronization
- ❖ Inter-relations with foreign experts

Interests

Reading in the discipline of Computer Science, Internet, and Programming. Non-academic reading and many others.

Others

- Holding Driving License (Palestinian).
- References are available upon request.