

CURRICULUM VITA

Samah Z. Rahamneh

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Education:

2016 – 2020

Ph.D. Electrical and Computer Engineering (Candidacy)
Western Michigan University, Kalamazoo, MI
Dissertation: “Efficient HW/SW partitioning techniques for
utilizing FPGAs in the cloud”.
GPA: 3.75 out of 4.0

2015 – 2016

University of Missouri-Columbia. Columbia, MO
20 credit hours of the Ph.D. in Computer engineering
Were completed with GPA of 4.0 out of 4.0

2012 - 2014

M.Sc. in Computer and Networks Engineering.
University of Jordan. Amman, Jordan.
GPA 3.84 out of 4.0. Ranked No.1 in a class of 21 engineer.
The university ranked No.1 in the nation.
Thesis title: “Modified WRR algorithm for scheduling Variable Bit
Rate (VBR) traffic in WiMAX networks”

2005 – 2009

B.Sc. in Computer Engineering.
Al-Balqa Applied University, As salt, Jordan.
GPA: 3.95 out of 4.0. Ranked No.1 in a class of 64. My university
ranked No. 6.
Project: “Wireless system to measure and monitor the percentage of
water (for cheated diesel) and level of diesel in home diesel tank”

Research Experience and Interest:

2008 - 2009 Undergraduate research assistant at computer engineering department, Al-balqa'a Applied University, As salt, Jordan. A funded research project by King Abdullah II Design and Development Bureau (KADDB). Project title: "Measuring the Percentage of Water in the Cheated Diesel".

2018 – present Graduate research assistant at electrical and computer engineering department, Western Michigan University, Kalamazoo, MI. A funded research project by National Science Foundation (NSF). Project title: "EAGER: Efficient Utilization of FPGAs in HPC Centers and the Cloud: A Software/Hardware Approach".

Research interest Hardware acceleration (FPGA), cloud computing and Software Defined Networks (SDNs), machine learning and optimization, HW/SW co-design.

Teaching Experience and Interest:

2009 – 2011 Computer skills and A+ instructor at the computer center. Al-balqa'a Applied University, As salt, Jordan.

2012 – 2013 Teaching assistant. Collage of engineering. University of Jordan, Amman, Jordan.

2014 -2015 Laboratory instructor. College of engineering. Al-balqa'a Applied University, As salt, Jordan.

2020 – now Assistant professor, University of Jordan, Amman, Jordan.

Teaching Interest: Cloud computing, computer networks and distributed systems, computer architecture, digital image processing, programming FPGAs using HDL and HLS tools., machine learning and optimization.

Work Experience:

2009 – 2013	Network administrator and programmer. Computer center, Al-balqa'a Applied University. As salt, Jordan.
2014-2015	Laboratory instructor. Collage of engineering. Al-balqa'a Applied University. As salt, Jordan.
2016 -2020	Research assistant, Western Michigan University, MI, USA.
2020 – now	Assistant professor, Computer engineering department, University of Jordan, Amman, Jordan.

Publications:

Jawad, Shatha K., **Rahamneh, Samah**, Samir M. Said, Ayah A. Muwafi, and Ghada H. Al-Issawi. "Capacitor meter to measure the percentage of water in home diesel tank." Scientific Research and Essays 6, no. 1 (2011): 221-228. **Published.**

Rahamneh, Samah, and Lina Sawalha. "ODR: On-Line Delay Reduction Approach for Transferring Dynamically-Generated Big Flows Leveraging Software-Defined Networks." In IEEE International Conference on Electro/Information Technology (EIT), pp. 0707-0712. IEEE, 2018. **Published.**

Rahamneh, Samah, and Lina Sawalha. "An OpenCL-based Acceleration of Canny Algorithm on Heterogenous CPU-FPGA Platform." The 27th IEEE Symposium on Field-Programmable Custom Computing Machines (FCCM), **Published** abstract and Poster.

Rahamneh, Samah, and Lina Sawalha. "Scalable HW/SW Codesign of edge detection algorithms on Heterogenous CPU-FPGA Platform using HLS Tools." **Submitted** to IEEE/ACM/IFIP International Conference on Hardware/Software Codesign and System Synthesis (CODES+ISSS).

Rahamneh, Samah, and Lina Sawalha. "A Comprehensive survey on HW/SW partitioning techniques." **In Submitting** to IEEE Transaction on Parallel and Distributed Systems.

Honors and Awards:

2005 - 2009	King Abdullah II award to pursue B.Sc. degree in computer engineering.
2012 - 2014	Scholarship from the University of Jordan to pursue M.Sc. degree in Computer engineering.

Samah Z. Rahamneh, Ph.D

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| 2015 - 2019 | Scholarship from the University of Jordan to pursue Ph.D. degree in computer engineering from the USA. |
| 2018 - present | Graduate research discovery award from the electrical and computer engineering department at Western Michigan University, Kalamazoo, MI. |
| 2018 | Travel grant award from collage of engineering and applied science at Western Michigan University to present paper in IEEE 19 th EIT conference. |
| 2019 | Travel grant award from collage of engineering and applied science at Western Michigan University to present paper in the IEEE 27 th FCCM conference. |
| 2019 | Travel grant award from graduate collage at Western Michigan University (In progress). |
| 2019 | Nominated for Research and Creative Activities Poster and Performance Day at Western Michigan University. |

Special Courses and Training:

1. **A+ Course:** 2008 at Al-Balqa'a Applied University, As salt, Jordan.
2. **PIC Controller:** 2009 at JAOM Center in Amman, Jordan
3. **PSoC Controller:** 2009 at IEEE student branch in University of Jordan, Amman, Jordan
4. **VB.NET Programming + ASP.NET + ADO.NET:** 2007 at Al-Balqa'a Applied University, As salt, Jordan.
5. **Oracle:** 2010 at Al-Balqa'a Applied University, As salt, Jordan.
6. **Linux Red Hat:** 2010 at Al-Balqa'a Applied University, As salt, Jordan.
8. **MCSE 2003:** 2010 at NTC Center in Amman, Jordan.
9. **MCITP 2008 Administrator:** 2011 at Royal Scientific Society. Amman, Jordan.
10. **Exchange server 2010:** 2011 at STS. Amman, Jordan.

Skills and Programming Languages:

C/ C++ (Open MP, POSIX), Python, Java, MATLAB (for Image Processing, Digital Signal Processing and Communications), VHDL, CUDA, VB.NET, Oracle, Hand on experience on: AWS Cloud Solutions, GENI, OpenStack, OpenCL, Shell scripting.

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Professional Associations:

Institution of Electrical and Electronics Engineers (IEEE).

Jordanian Engineers Association (JEA).