



Sherenaz Waleed Al-Haj Baddar

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Education

- 2005-2009 Ph.D. Computer Science
GPA:4.0 (Rating: Excellent)
Kent State University
Kent, Ohio 44242 USA
- 2001-2003 M.Sc. Computer Science
GPA:3.94(Rating: Excellent)
University of Jordan
Amman 11942 Jordan
- 1997-2001 B.Sc. Computer Science
GPA: 3.86(Rating: Excellent)
University of Jordan
Amman 11942 Jordan

Academic Experience

- Fall 2009 - now Assistant Professor, Computer Science Department, KASIT, University of Jordan, Amman 11942 Jordan. Activities include:
 - Teaching Distributed Systems; Network Programming using Java; Multimedia Networking; C++; Computer Networks
 - Technical Testing and configuration of the HP XC 3000 cluster hosted in KASIT
 - Academic Supervised graduation projects in the areas of: Multimedia Networking, Operating Systems, and Multiagents.
Coordinating Computer Skills 2(C++)
- 2007- 2009 Graduate Assistantship, Computer Science Department, Kent State University, Kent OH 44242 USA. The assigned tasks included:
 - Teaching Introduction to Computer Science/ lab; Computer Science I/ lab; Computer Literacy
 - Grading Computer Architecture Homeworks; Computer Algorithms Homeworks
- 2002-2005 *Teaching Assistantship*. Department of Computer Science, University of Jordan, Amman, Jordan. Assigned tasks included:

Teaching	Computer Skills-1; Fundamentals of IT; Programming Languages-C++; Numerical Analysis; Computer Algorithms; Graph Algorithms; Operating Systems; Computer Systems' Performance; Theory of Computations
Technical	Lab. Administrator of the Incubator Lab., tasks included: Configuring and administrating Compaq servers running Windows Advanced Server.; Creating and managing KASIT students' accounts; and Configuring IBM Desktop computers as well as Compaq servers to assist students and faculty members develop projects and run experimentations.

Administrative Experience

- Fall 2010-now: Assistant dean for laboratory affairs. King Abdullah II School for Information Technology. University of Jordan. Amman-Jordan
- Fall 2010-now: Assistant dean for community outreach. Deanship of academic Research University of Jordan. Amman-Jordan

Publications and Scholarly Work

Work in Progress

- **Sherenaz W. Al-Haj Baddar**, Sami. I. Serhan, Hamed Abdel-Haq. "The Growing-Tree Sorting Algorithm". To be submitted.
- **Sherenaz W. Al-Haj Baddar**, " On simulating two permission-based distributed mutual exclusion algorithms for wireless sensor networks", to be submitted.

Publications (refereed)

- **Sherenaz W. Al-Haj Baddar** and Kenneth E. Batcher, "Finding Better Sorting Networks", VDM(Verlag Dr. Muller) publishing House, Mauritius Germany, ISBN: 978-3-639-17800-5, September 2009.
- **Sherenaz W. Al-Haj Baddar** and Kenneth E. Batcher, "An 11-Step Sorting Network for 18 Elements", Parallel Processing Letters, 19(1):97-104, March 2009.
- **S. Al-Haj Baddar**, S. Serhan, and K. El Hindi, "Networks Fault Diagnosis Using Conversational Case-based Reasoning", *AMSE*, vol. 11, No. 2, pp. 1-18, 2006.
- S. Serhan and **S. Al-Haj Baddar**, "New Mapping Technique For Cache Memory", *AMSE*, Vol. 9, No.1, pp.27-40, August 2004.
- A. Al-Jaber, K. Al-Hindi, and **S. Al-Haj Baddar**, "Steganography Using the Nearest Neighbor Algorithm", *Abhath Al Yarmouk: Basic Sciences and Engineering*, Vol. 12, No. 2B, pp. 685-695, December 2003.

Theses

- **S. Al-Haj Baddar**, " Finding Better Sorting Networks", PhD. Dissertation, Department of Computer Science, Faculty of Arts and Sciences, Kent State University, Kent OH 44242, May 2009.
- **S. Al-Haj Baddar**, "Networks Fault Diagnosis Using Conversational Case-based Reasoning", M. S. thesis, Faculty of Graduate Studies, University of Jordan, Amman, Jordan, August 2003.

Technical Reports & Non-refereed Articles

- **Sherenaz W. Al-Haj Baddar**, " The HP XC Cluster Status Report", March 23rd 2010.
- **Sherenaz W. Al-Haj Baddar**, Kenneth E. Batcher, "A 12-Step Sorting Network for 22 Elements", September 5th 2008: TR-KSU-CS-2008-05.
- Kenneth E. Batcher and **Sherenaz W. Al-Haj Baddar**, "*Sortnet: A Program for Building Sorting Networks*", February 14th 2008: TR-KSU-CS-2008-01.
- **Sherenaz W. Al-Haj Baddar** and Kenneth E. Batcher "*An 11-Step Sorting Network for 18 Elements*", September 19th 2007: TR-KSU-CS-2007-06.

Research Interests

Research interests include:

- Distributed Computing: Adapting Distributed Mutual Exclusion Algorithms for wireless sensor networks
- Parallel Sorting: speeding up multi-stage interconnection networks for sorting (Sorting Networks)
- Computer Algorithms
- Emergent Operating systems, and
- Computer Architecture.

Awards, Funding, and Other Support

- May 2009 Won the second place prizes(Scientific Advancement and Business and Industry categories) for presenting the poster entitled “Finding Better Sorting Networks”, Kent State University, Kent OH 44242 USA.
- April 2008 Won the third place prize(Business and Industry category) for presenting the poster entitled “An 11-Step Sorting Network for 18 Elements”, Kent State University, Kent, OH 44242
- 2006-2009 Graduate Assistantship from the Computer Science Department, Kent State University, Kent Ohio, 44242 USA.
- 2005-2009 Graduate Scholarship(from University of Jordan, to pursue PhD. Degree)
- 2004-2005 Received fund for working as a co-researcher in the project entitled” Teaching E-commerce Principles On-line”, funded by the Higher Council of Sciences and Technology, Amman, Jordan.
- 2002-2003 Graduate Scholarship(from University of Jordan, to pursue M.Sc. degree)

Institutional and Professional Activities

- Prepared and presented the poster entitled “Finding Better Sorting Networks”, in conjunction with Prof. Kenneth Batcher, at the fourth poster conference held at the Department of Computer Science, Kent State University, Kent, Ohio, May 2009.
- Served as a co-chair in the organizational committee of the OGSS(Ohio Graduate Student Symposium)'08 held at the Computer Science Department, Kent State University, Kent 44242 OH, USA.
- Prepared and presented the poster entitled “ An 11-Step Sorting Network for 18 Elements”, in conjunction with Prof. Kenneth Batcher, at the third poster conference held at the Department of Computer Science, Kent State University, Kent, Ohio, April 2008.
- Prepared and presented the Sorting Networks Poster, in conjunction with Prof. Kenneth Batcher and Syed Hossain, the first and second poster conferences held at the Department of Computer Science, Kent State University, Kent, Ohio, April 2006 and April 2007.
- Compiling undergraduate course outlines for the following courses: System Programming, Compilers’ Design, Computer Architecture, Numerical Analysis, Computer Algorithms, Graph Algorithms, Programming Language-C++, Computer Systems’ Performance, Theory of Computations, and Operating Systems, 2003-2005.
- Participated in proof reading of: S. Al-Oqaily et al., *Mastering C++*, Dar-Al-Shorug, Amman, Jordan, 2004.