

# CURRICULUM VITAE

## Personal Data :

Name: Ayman Mahmoud Aref Abdalla  
Nationality : Jordanian  
Date of birth : 26 November 1970.  
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## EDUCATION:

**Ph.D., May 2001** University of Central Florida Orlando, FL, USA *Major: Computer Science*  
*Thesis Title: Computing a diameter-constrained minimum spanning tree. Thesis Topics: Algorithms, Parallel Processing, and Graph Theory.*

**M.S., May 1996** Montclair State University Montclair, NJ, USA *Major: Computer Science*  
*Concentration: Applied Mathematics*

**B.S., August 1992** Montclair State University Montclair, NJ, USA *Major: Computer Science*  
*Minor: Mathematics*

## RESEARCH INTERESTS:

Image Cryptography and Graph Theory Algorithms.

## PUBLICATIONS:

- A. Yahya and A. Abdalla, "An AES-Based Encryption Algorithm with Shuffling," In *The 2009 International Conference on Security and Management (SAM '09)*, Las Vegas, NV, USA. 13-16 July 2009.
- A. Abusukhon, M. Oakes and A. Abdalla, "Performance Analysis of Distributed IR Systems: Document-based, Term-based and Hybrid Partitioning," *International Journal of Information Studies*, vol. 1(1): pp. 40-49, 2009.
- A. Yahya and A. Abdalla, "A Shuffle Encryption Algorithm Using S-Box," *Journal of Computer Science*, vol. 4(12): pp. 999-1002, 2008.
- M. Nabulsi and A. Abdalla, "The relationship between exclusive-or and the unique existential quantifier," *Journal of Computer Science*, vol. 4(9): pp. 741-743, 2008.
- M. Nabulsi and A. Abdalla, "A Method of Deductive Logical Inference Proofs," *Journal of Computer Science*, vol. 4(4): pp. 345-348, 2008.
- A. Abusukhon, M.P. Oakes, M. Talib and A. Abdalla. "Comparison Between Document-based, Term-based and Hybrid Partitioning," In *First International Conference on the Applications of Digital Information and Web Technologies (ICADIWT '08)*, Czech Republic, 4-6 August 2008.
- A. Yahya and A. Abdalla, "Implementation of Matrix Folding in Multimedia Transmission," *Pakistan Journal of Information and Technology*, vol. 2(2): pp. 151-158, 2003.

- A. Yahya, A. Abdalla and K. Al-Qawasmi, “Compressing Video Using Matrix Folding,” *Pakistan Journal of Information and Technology*, vol. 2(1): pp. 61-64, 2003.
- A. Abdalla and N. Deo, “Random-Tree Diameter and the Diameter-Constrained MST,” *International Journal of Computer Mathematics*, vol. 79(6): pp. 651-663, 2002.

- **WORK EXPERIENCE:**

**7/2001 – present Assistant Professor** DEPARTMENT OF COMPUTER SCIENCE  
*Al-Zaytoonah University of Jordan*  
*Amman, Jordan*

- Coordinated with the University of Sunderland (UK) to administer the joint BSc Computer Studies (Honors) program.
- Monitored course plans, exams, and assignments to ensure meeting the requirements of both Al-Zaytoonah University and the University of Sunderland.
- Taught several courses that include Computer Algorithms, Design of Programming Languages, Software Engineering, Parallel Programming, Object Oriented Programming, Information Technology, Computer Graphics, Compiler Design, Systems Software Design, Data Structures, Computation Theory, Internet Fundamentals, and Computer Skills I & II.
- Co-supervised two Ph.D. students, as a local supervisor, to help direct their research and to provide them with advise to improve their dissertations.
- revising the syllabus for some course and coordinating common exams.

**1/1997 – 5/2001 Graduate Teaching Assistant**

SCHOOL OF COMPUTER SCIENCE  
*University of Central Florida*  
*Orlando, FL, USA*

- Taught the C Language Programming course, which included giving lectures, exams, and projects.
- Taught recitation sessions and assisted students of different courses in subjects that included Discrete Mathematics, Systems Software, Computer Organization, and Foundations of Computer Science.
- Graded exams and homework assignments for the above courses.

**6/1999 – 12/1999 Development Co-Op**

*ImageSoft Technologies, Inc.*  
*Maitland, FL, USA*

- Designed and implemented object-oriented computer programs in C++.
- Built and tested new programs using GNU Make in the company’s testing environment.
- Performed reliability testing of existing software.
- Helped update the user manual for a new release of a company software package.

**9/1992 – 5/1996 Graduate Assistant / Master Tutor**

TUTORIAL CENTER *Montclair State University*  
*Upper Montclair, NJ, USA*

- Tutored Pascal, C, BASIC, Computer Architecture, Data Structures, Discrete Mathematics, Calculus I-III, College Algebra, Math for Business, and Differential Equations.

**PUBLICATIONS PRIOR TO THE DOCTORAL DEGREE:**

- Abdalla, A., N. Deo and P. Gupta, "Random-Tree Diameter and the Diameter-Constrained MST," In *31<sup>st</sup> Southeastern International CGTC Conference*, Florida Atlantic University, Boca Raton, FL, USA, 13-17 March 2000.
  - Deo, N. and A. Abdalla, "Computing a Diameter-Constrained Minimum Spanning Tree in Parallel," *Lecture Notes in Computer Science*, vol. 1767: pp. 17-31, 2000.
  - Abdalla, A., N. Deo and R. Fanceschini, "Parallel Heuristics for the Diameter-Constrained MST Problem," *Congressus Numerantium*, vol. 136: pp.97-118, 1999.
  - Abdalla, A., N. Deo, N. Kumar and T. Terry "Parallel Computation of Diameter-Constrained MST and Related Problems," *Congressus Numerantium*, vol. 126: pp. 131-155, 1997.
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- As a member of the Faculty of Science and Information Technology Quality Assurance Committee, produced forms and documents to be used by the faculty, to help meet national and international quality assurance standards.

- As a member of the Computer-Science Course-Plan Committee, helped update the computer science course plan and provided suggestions to improve several courses.
- Served as a member of the Organizing Committee and the Technical Committee of the biannual International Conference on Information Technology and Natural Sciences, at Al-Zaytoonah University, Amman, Jordan, 19-21 October 2003, 3-5 May 2005, and 9-11 May 2007.
- Chaired sessions on distant learning in the second and third conferences above.
- Reviewed research papers submitted for the above conferences, and distributed papers that met submission conditions to appropriate referees.
- Refereed several papers for the above conferences.
- Taught review sessions to prepare students for national and international standardized exams.  
Participated in student academic advising and other tasks assigned by the department, such as