

## Suleiman Hussein Mustafa

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### Education

- Ph.D. , Information Systems, University of Pittsburgh (USA), 1986
- Master's Degree, Information Studies, Loughborough University of Technology (UK), 1981
- Bachelor's Degree, Information Studies, Cairo University (Egypt), 1973

### Professional Experience

- Chairman, Dept. of Information Systems, Prince Sultan University, Riyadh, KSA, 26/9/2009- ...
- Dean, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan), 20/8//2005 – 13/9/2009.
- Vice-Dean, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan), 1/9//2005 – 20/8/2006
- Professor: Department of Computer Information Systems, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan), 15/2/2005 – onwards.
- Associate Professor: Department of Computer Information Systems, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan), 16/9/2002 – 2005.
- Chairman of the Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan),
  1. 1993/94-1994/95 (two years)
  2. Summer session of 1998/99
  3. 3/9/2000 – 16/09/2002.
- Associate Professor: Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan), 1998/99 – 16/9/2002. (Date of promotion: 23/11/1997)
- Assistant Professor: Department of Mathematics & Computing and Department of Computer Sciences, College of Science, Sultan Qaboos University (Muscat, Oman), 1994/95- 1997/98
- Assistant Professor: Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan), 1988/89 - 23/11/1997
- Lecturer: Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan), 1986/87 - 1987/88.

### Research Interests

- Natural language processing (with special focus on Arabization issues).
- Database and information retrieval systems.
- Software engineering and systems analysis and design.
- Web Design

### Publications

#### ❖ Journal Articles

- Mustafa, Suleiman H. (2005). Word-oriented approximate string matching using occurrence heuristic tables: A heuristic for searching Arabic text.

**Journal of the American Society for Information Science & Technology**, 56(14): 1504-1511.

- Mustafa, Suleiman H. (2005). Combining N-grams and stemming for Arabic word-based inexact matching and term conflation. **Journal of Information and Knowledge Management**, 4(1): 29-36.
- Mustafa, Suleiman H. (2005). Character contiguity in N-gram-based word matching: The case for Arabic text searching. **Information Processing & Management**, 41(4): 819-827. Available online: <http://authors.elsevier.com/sd/article/S030645704000111>.
- Mustafa, Suleiman H. and Al-Radaideh, Q. A. (2004). Using N-grams for Arabic text searching. **Journal of the American Society for Information Science and Technology (JASIST)**, 55(11): 1002-1007.
- Mustafa, S.H. (2003). A morphology-driven string matching approach to Arabic text searching. **The Journal of Systems and Software**, 67: 77-87.
- Mustafa, S.H. (2002). Coding schemes variation and its impact on string hashing. **Computer Standards & Interfaces**, 24: 473-481.
- Mustafa, S.H. (2002) A relational approach to the design of an Arabic lexical database. **Journal of King Saud University: Computer and Information Sciences**, 14: 1-23.
- Mustafa, S.H. and Masoud, Fawaz (2001). How good is the critical factor concept in estimating the average number of character comparisons per item in string sorting? **The Journal of Systems and Software**, 57: 221-226.
- Mustafa, Suleiman H. (2001). A proposed lexical ordering system for a computational Arabic lexicon. **Selected Research Papers**, 1: 28-45. Appeared also in: **Proceedings of the 3<sup>rd</sup> Scientific Conference on Computers and Their Applications** (SCCA), Applied Science University, Amman, Jordan.
- Mustafa, Suleiman H. and Masoud, Fawaz (2000) A backward algorithm for lexical analysis of textual Arabic words. **Abhath Al-Yarmouk: Basic Sciences and Engineering Series** (*The Research Journal of Yarmouk University*), 1(9): 91-125.
- Mustafa, Suleiman H. (1998). Arabic string searching in the context of character code standards and orthographic variations. **Computer Standards & Interfaces**, 20: 31-51.
- Mustafa, Suleiman H. (1996). Sorting problems of the standard Arabic character set. **Computer Standards & Interfaces**, 18: 159-173.
- Shaikh, M.E., Mustafa, S.H. & Masoud, F.A. (1995). Formalizing the systems development life cycle (sdlc): An abstract procedural framework. **Journal of the Institute of Mathematics and Computer Sciences: Computer Science Series**, 6(2): 85-103
- Mustafa, S.H. (1995). Natural Language Question-Answering Database Interface Systems: A Comparative Review. **Journal of the Institute of Mathematics and Computer Sciences: Computer Science Series**, 6(1): 47-61

- Mustafa, S.H. (1994). A Dictionary-Based Data Compression Technique for Storing Arabic Names. **Journal of the Institute of Mathematics and Computer Science: Computer Science Series**, 5(2): 161-172
- Mustafa, Suleiman H. (1996). Machine recognition of word affixes in computerized Arabic string processing: removal of the article "AL". **Abhath Al-Yarmouk (The Research Journal of Yarmouk University): Basic Science and Engineering Series**, 5(1): 9-42 (text in Arabic).
- Mustafa, Suleiman H. (1994). Hashing Arabic names and the impact of the critical factor concept on reducing collision rates. **Abhath Al-Yarmouk (The Research Journal of Yarmouk University): Basic Science and Engineering Series**, 3(1): 9-47 (Text in Arabic).
- Mustafa, Suleiman H. (1991). Development of front-end information retrieval systems and factors affecting end-user retrieval behavior. **Arab Journal of Administration**, 15(1-3): 101-149 (Text in Arabic).
- Mustafa, S.H. (1988). Information banks and their impact on scientific research and higher education in the Arab countries. **Journal of the Arab Universities Union**, special issue: 86-134 (Text in Arabic).
- Mustafa, S.H. (1987). Information Technology Transfer to Developing Countries. **Arab Journal of Administration**, 11(4): 23-40 (Text in Arabic).
- Mustafa, S.H. (1987). Microcomputer-Based Project Management Systems. **Arab Journal of Administration**, 11(2): 24-49 (Text in Arabic).

#### ❖ Conference Articles

- Mustafa, Suleiman H. and Al-Zou'bi, Loai F. S.( 2008 ). Usability of the academic websites of Jordan's universities: An evaluation study. Accepted for presentation in **The 9th International Arab Conference on Information Technology (ACIT 2008)**, Tunisia, Sfax University,16-18, Dec. 2008.
- Mustafa, Suleiman H. (2007). Word stemming for Arabic: The case for simple light stemming: The 8th International Arab Conference on Information Technology (ACIT 2007), pp. 396-410. Lattakia, Syria, 26-28, Nov. 2007.
- Mustafa, Suleiman H. and Awwad, Sari (2006). Arabic word class tagging based on the analysis of affix structure. The 7th International Arab Conference on Information Technology (ACIT 2006), Yarmouk Univ. (Irbid, Jordan), Dec. 19-21, 2006.
- Mustafa, S.H. and Al-Radaideh, Q.A. (2001). Arabic word stemming using letter successor and predecessor variety. Proceedings of the 2001 International Arab Conference on Information Technology (ACIT' 2001), Jordan University of Science and Technology, Irbid, Jordan.
- Mustafa, S.H. and Al-Radaideh, Q.A. (2001). Arabic Word Stemming Using Letter Successor and Predecessor Variety. In: Proceedings of the 2001 International Arab Conference on Information Technology (ACIT' 2001), Jordan University of Science and Technology, pp. 216-222. Irbid, Jordan, 13-15 November 2001.
- Mustafa, S.M. (2001). A Proposed Lexical Ordering System for a Computational Arabic Lexicon. In: Proceedings of the 3rd Scientific

Conference on Computers and Their Applications (SCCA), pp. 2-10. Applied Science University, Amman, Jordan, Feb. 11-13, 2001.

- Atoum, J.A. & Ibrahim, F.I. & Mustafa, Suleiman H. (1998). Sorting vocalized Arabic words. In: Proceedings of the IASTED International Conference on Computer Systems and Applications, pp. 191-195. Irbid, Jordan, March 30-April 2, 1998.
- Masoud, F.A. & Shaikh, M.U. & Mustafa, S.H. (1997). The SASD Methodology from a Practical Point of View: Problems and Suggestions for Improvement. In: Proceedings of the International Conference on Software Quality Engineering (SQE 97), pp.93-102., Urdine(Italy), 5-7 May 1997.
- Mustafa, S.H. (1991). Optical Storage Technology and its Impact on Information Storage and Retrieval. In: Proceedings of the Second Arab Colloquium on Information Science. Tunis, 1991, pp. 77-107. [Text in Arabic]

#### ❖ Other Publications

- Introduction to Programming with Pascal/ Suleiman H. Mustafa & Najeeb A. El-Koufahi. Amman: Al-Quds Open University, 1992. [Refereed, Text in Arabic]
- Introduction to Data Structures and File Processing/ Suleiman H. Mustafa & Najeeb A. El-Koufahi & Fawaz A. Masoud. Amman: Al-Quds Open University, 1992. [Refereed, Text in Arabic]
- Mustafa, S.H. & El-Oqeili, S. Introduction to Microcomputers and Microcomputer Applications. Irbid(Jordan): authors, 1994. [Text in Arabic]

#### Postgraduate Supervision

- Advised computer science students at different levels and coordinated orientation programs and major selection activities
- Supervised one graduate student at Al-Albeit University (thesis title: Applying Computerized Word-Class Tagging to Non-vocalized Arabic Texts Based on Morphological Analysis)
- Member in Several Thesis Defense Committees (Yarmouk U (three theses), Al-Elbait U. (three theses), JUST (6 theses), and U. of Jordan (one thesis))
- Supervised 15 graduate projects in Information technology and served an examiner for many graduate projects.

#### Grants and Awards

- Bachelor's degree scholarship: offered by the Ministry of Education (Amman, Jordan), 1968/69 - 1973.
- Master's degree scholarship: offered by UNESCO through Loughborough University of Technology (Loughborough, U.K.), 1980/81
- Ph.D. scholarship: offered by Yarmouk University (Irbid, Jordan), 1982/83 - 1986.
- Huddsons Prize: offered by Huddson Bookshop through Loughborough University of Technology (Loughbprough, U.K.)
- Harold Lancour Award: offered by the University of Pittsburgh (Pittsburgh, PA, U.S.A.)

#### Membership of Committees and Boards

- Member in the Health Insurance Committee of YU, March 2005 - 2009
- Member in the University Board of Research at Yarmouk University, 2005- ...
- Member of the steering committee of the International Arab Conference on Information Technology 1999/2000 - .....
- Member in the Steering Committee of the network established by UNESCO to improve higher education in Iraq, 2007.

- Chair of the organizing committee of the 7<sup>th</sup> International Arab Conference on Information Technology, 19-21 Dec., 2006.
- Member of the committee formed by the Higher Education Council (Jordan) to review the policies of using IT at Jordan's universities, 2006.
- Member in the committee that has been formed to prepare the University Strategy for the future, 2006.
- Member in the committee that prepared the degree programs of the Faculty of Information Technology, 2001.
- Member in the committee that was formed by Yarmouk University in 2001 to submit a report on the feasibility of establishing the Faculty of Information Technology.
- Headed the Investigation Committee for Student Violations at the Faculty of Information Technology, 2003-2004.
- Member in the Board of Graduate Studies at Yarmouk University, 2002 - 2005
- Member in the Higher Committee for the Recognition of Non-Local Universities (Ministry of Higher Education, Jordan), 2001- 2004
- Chaired and participated in several departmental and college committees including: curriculum committees, appointment committees, graduate studies committees, research committees, time-tabling and course scheduling committees.
- Represented the Department of Computer Science during the academic year 1998/99 in the Faculty of Science Board.
- Represented the Department of Computer Information Systems during the academic year 2003-2004 in the Board of the Faculty of Info. Technology & Comp. Sciences.
- Member in a number of national accreditation committees for IT and computer science programs (Ministry of Higher Education and the National Accreditation Council)

### **Editorship and Refereeing Activities**

- Reviewer of papers for: The 4<sup>th</sup> Workshop on Information & Computer Science (WICS' 2002), King Fahd Univ. of Petroleum and Minerals, Dhahran, Saudi Arabia, March 17-18, 2002.
- Reviewer of several papers for: The **Research Journal of Yarmouk University** (Abhath Al-Yarmouk): Engineering and Basic Science Series, Irbid, Jordan.
- Reviewed 6 articles for: **Journal of the American Society for Information Science and Technology**.
- Reviewed one paper (2007) for **Information Processing & Management** (USA, Elsevier).
- Reviewed two articles for: Al-Manarah (Research Journal of AlElbait University, Jordan).
- Reviewed three articles for the research journal published by Amman Private University, Jordan.
- Reviewed one article for: **The Arab Journal of Linguistics**, 2007.
- Reviewed one article for: **The Jordanian Journal of Mathematics**, 2008.
- Reviewed two of the IT proposals submitted to the Palestinian Ministry of Higher Education for gaining financial grants through the World Bank program of supporting the Palestinian Authority, 2007.
- Reviewed a research project proposal for Sutan Qaboos University, Oman, 2008.
- Reviewed a research project proposal for the Ministry of Higher Education, Jordan, 2009.

### **Teaching Experience**

Taught the following courses:

- Microcomputer Applications
- Introduction to Computer Science
- Programming with BASIC, Fortran, Pascal, COBOL, C, and LISP
- Object-Oriented Programming Using C++
- Information Systems Management
- Management Information Systems

- Decision Support Systems
- Software Project Management (for graduate students)
- Systems Analysis and Design
- Database Management Systems
- Database Design (for graduate students )
- Web Design
- Internet Programming (using XHTML)
- File Processing
- Data Structures
- Software Engineering (graduate and undergraduate courses)
- Information Retrieval Systems
- Artificial Intelligence
- Knowledge-Base Systems (for graduate students)
- Natural Language Processing (graduate and undergraduate courses)
- Operating Systems
- Programming Language Methodologies and Paradigms
- Compiler Construction
- Object-Oriented Analysis and Design (graduate and undergraduate courses)
- Research methods for IT professionals (for graduate students)
- Computer Ethics

### **Professional Memberships**

- Member in Jordan Computer Society.
- Member in Arab Society for Information Science.