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### **Short Biography**

Suleiman Hussein Mustafa Bani-Bakr was a professor of Information Systems in the Faculty of Information Technology & Computer Sciences at Yarmouk University up to 2022. Currently he is a professor of software engineering at Jadara University in Jordan. He got his Ph.D. in information systems from the University of Pittsburgh (USA) in 1986. He was granted several academic awards and scholarships. After graduation, he worked at Yarmouk University for eight years and chaired the Department of Computer Science for two years. In 1994 he went on leave from YU for four years during which he worked in the Department of Computer Science at Sultan Qaboos University in Oman. He headed the Dept. of Computer Science at YU for the second time for two years (2000-2002). He was also assigned the position of Vice-Dean of the Faculty of Information Technology at Yarmouk University for one year (2005-2006) then became the Dean of the same college starting from 20/8/2006 until 13/9/2009. He joined Prince Sultan University starting from 26/9/2009 as the Chairman of the Department of Information Systems until 31-8-2012. He became the dean of the College of IT and Info. Technology at YU for the second time since 2/9/2012 and served in this position until 23/8/2016. In 2019 he joined Jordan University of Science and Technology for one academic year. He has published more than thirty papers in a number of research areas in computer science and information systems including natural language processing, database and information retrieval systems, and software engineering. His teaching interests focus on database design and management, software engineering, object-oriented analysis and design, software project management, information retrieval, and web design.

# ملخص سيرة ذاتية:

عمل الدكتور سليمان حسين مصطفى بني بكر برتبة أستاذ في نظم المعلومات في كلية تكنولوجيا المعلومات في جامعة اليرموك حتى عام 2022 وهو يعمل حاليا أستاذا في هندسة البرمجيات في جامعة جدارا / الأردن. حصل على درجة الدكتوراة في نظم المعلومات من جامعة بتسبرغ في الولايات المتحدة عام 1986. وقد حصل خلال دراسته على العديد من المنح والجوائز الأكاديمية. التحق بعد تخرجه بجامعة اليرموك، وعمل لمدة ثمانية سنوات في التدريس في قسم علوم الحاسوب، ورأس القسم لمدة سنتين (1992–1994)، غادرها بعد ذلك مباشرة عام 1994 للعمل في قسم علوم الحاسوب في جامعة السلطان قابوس في سلطنة عمان لمدة أربع سنوات. ثم عاد بعد ذلك ليواصل عمله في قسم علوم الحاسوب في جامعة اليرموك. ثم أسندت له مهمة رئاسة القسم للمرة الثانية في الفترة 2000–2000. ثم عين بوظيفة نائب عميد كلية تكنولوجيا المعلومات في جامعة اليرموك لمدة عام (2005–2006) وعين بعد ذلك عميدا لنفس الكلية بدءا من 20/8/8/20 حتى 20/8/20/9. التحق بعدها بجامعة الأمير سلطان رئيسا لقسم نظم المعلومات بدءا من 20/8/2009 حتى 2012/8/31. ثم شغل

منصب عميد كلية تكنولوجيا المعلومات وعلوم الحاسوب في جامعة اليرموك منذ 2012/9/2 حتى منصب عميد كلية تكنولوجيا المعلومات العلوم والتكنولوجيا الأردنية لمدة عام دراسي. نشر ما يزيد عن ثلاثين بحثا في علوم الحاسوب ونظم المعلومات. وقد تركزت اهتماماته البحثية على معالجة اللغة الطبيعية، ونظم استرجاع المعلومات وقواعد البيانات وهندسة البرمجيات وتصميم الويب.

# **CURRICULUM VITAE**

#### **GENERAL INFORMATION**

Name: Suleiman Hussein Mustafa

Place of Birth: Tubneh - Jordan
Date of Birth: 11/12/1951
Nationality: Jordanian
Married Married

Department: Department of Computer Information Systems

College: Faculty of Information Technology & Computer Sciences

University: Yarmouk University (YU), Irbid, Jordan

Date Of Appointment at YU: 1/9/1988 Academic Rank: Professor Date of Promotion: 15/02/2005

## ACADEMIC QUALIFICATIONS

- 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

# ACADEMIC PROMOTIONS

- Professor: Department of Computer Information Systems, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan), Date of promotion: Feb 15, 2005.
- **Associate Professor**: Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan), Date of promotion: 23/11/1997

# EMPLOYMENT HISTORY

- 2024-2025 Professor of Software Engineerin, College of Information Technology-Jadara University Jordan.
- Sep. 2019 Sept. 2020: Visiting Professor, Dept. of Comp. Science, Jordan U. of Science and Technology.
- 2012 2019: Department of Computer Info. Systems, Yarmouk University,
- 2009-2012: Professor and Head Department of Information Systems, Prince Sultan University, Riyadh, Saudi Arabia.
- <u>15/2/2005 2009</u>: Professor: Department of Computer Information Systems, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan).
- <u>16/9/2002 2005</u>: Associate Professor: Department of Computer Information Systems, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan).
- <u>1998/99 16/9/2002</u>: Associate Professor: Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan),. (Date of promotion: 23/11/1997)
- <u>1994/95- 1997/98</u>: Assistant Professor: Department of Computer Science, College of Science, Sultan Qaboos University (Muscat, Oman).

- <u>1988/89 23/11/1997</u>: Assistant Professor: Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan).
- <u>1986/87 1987/88</u>: Full-time Lecturer, Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan),.

#### ADMINISTRATIVE POSITIONS

- <u>2/9//2012 23/8/2016</u>: Dean, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan).
- <u>26/9/2009- 31/8/2012</u>: Chairman, Dept. of Information Systems, Prince Sultan University, Riyadh, KSA,
- <u>20/8//2005 2009</u>: Dean, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan).
- <u>1/9//2005 20/8/2006</u>: Vice-Dean, Faculty of Information Technology & Computer Sciences, Yarmouk University (Irbid, Jordan).
- <u>3/9/2000 16/09/2002</u>: Chairman of the Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan).
- <u>1993/94-1994/95</u>: Chairman of the Department of Computer Science, Faculty of Science, Yarmouk University (Irbid, Jordan).

#### COURSES TAUGHT (GRADUATE & UNDERGRADUATE)

- 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
- Managing Information Systems
- Decision Support Systems
- Software Project Management (for graduate students)
- Systems Analysis and Design
- Database Management Systems
- Database Design (for graduate students )
- Database Development Using Oracle 10g
- Web Design
- Internet Programming (using XHTML)
- File Structures & 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 Methodology for IT professionals (for graduate students)
- Computer Ethics and Professional Issues

#### ACADEMIC QUALITY ASSURANCE EXPERIENCE

- Head of the Quality Assurance Committee, Collage of IT and Computer Sciences at Yarmouk University, Jordan.
- Served as a chair/member of several accreditation committees for the Jordanian Accreditation Organization, 2002-2014
- Reviewed several new program proposals for the Jordanian Accreditation Organization and Palestinian Ministry of Higher Education, 2002-2014

- Served on several committees for the accreditation of Prince Sultan University by NCAAA during 1he years 2009-2012.
- Reviewed a proposal for establishing a B.Sc. program in IT submitted to the Palestinian Ministry of Higher Education. 2012.
- Head of the Committee for the Accreditation of establishing a BSc program in Computer Networks at El-Esraa University, 2013
- Member of the Committee for the Accreditation of establishing the MSc program in Info.
   Systems and Innovation Management at Hashemite University, 2013

#### **ACADEMIC ACTIVITIES**

#### 1. Committees

- Member of the Scientific Research Trust Committee for Telecommunication and Information Technology Sector, 2012 -
- Member of the steering committee of the International Arab Conference on Information Technology (ACIT) 2011-
- Member, The YU Legal Committee, Sep. 2012-
- Member, YU Curriculum Committee, Sep. 2012-
- Chairman, PSU Curriculum Committee, Prince Sultan University, Sep. 2010- Sep. 2012
- Committee for Establishing College of Engineering at Prince Sultan University 2009
- 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 2009
- 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, timetabling 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)

### 2. Thesis Supervision and Review

• Supervised an M.Sc. thesis at YU entitled "The impact of denormalization of relations on database performance".

- Supervised an M.Sc. thesis at YU entitled "The relationship between software coupling, cohesion and complexity".
- Supervised a thesis submitted by M.Sc student at Yarmouk University under the title: An Investigation of the Impact of Stop Words Removal and Word Normalization on the Performance of Stem-Based Arabic Info. Retrieval, 2015.
- 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 (two theses)., Al-Elbait U. (three theses), JUST (6 theses), and U. of Jordan (one thesis))
- Supervised 22 graduate projects in Information technology and served an examiner for many graduate projects.
- Supervised several undergraduate graduation projects.

#### 3. Academic Promotion Reviews

- Reviewed one promotion application to the Professor rank for the Public Administration Institute, Saudi Arabia, 2016
- Reviewed several academic promotion applications for Palestinian universities.
- Reviewed one promotion application to the Associate professor rank and one promotion application to Professor rank for the University of Um-AlQura, Saudi Arabia, 2010.
- Reviewed one promotion application to the Professor rank for Al-Imam University, Saudi Arabia, 2011

#### 4. Journal Refereeing and Reviewing

- Reviewer for the *Journal of Knowledge Management* (USA).
- Reviewed one paper for the "National Journal for Research in Education" (Jordan), Nov. 2012.
- Reviewed book chapter for promotion as requested by the University of Jordan, Oct. 2012.
- Reviewed two papers for "Mutah Research Journal" 2012.
- 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.

# 5. Consultancy and Project Reviews

- Reviewed a research proposal in IT for the Scientific Research Fund (Jordan), Aug. 2016.
- Reviewed a research proposal in IT for the Scientific Research Fund (Jordan), Sep. 2012.
- Reviewed a IT project proposal for submitted to the Palestinian Ministry of Higher Education.
   Sep. 2012.
- Reviewed one project proposal for Al-Imam University, Saudi Arabia, 2011.
- 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.

#### RESEARCH INTERESTS & PUBLICATIONS

# 1. Research Interests

- Natural language processing
- Arabic computing
- Database design
- Information retrieval
- Software engineering
- Web design

#### 2. Textbooks

- 1. 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]
- 3. Mustafa, S.H. & El-Oqeili, S. Introduction to Microcomputers and Microcomputer Applications. Irbid(Jordan): authors, 1994. [Text in Arabic]
- 4. File Organization and Processing. [In draft form, Text in Arabic]
- 5. Introduction to Data Structures. [ In draft form, Text in Arabic]

# 3. Refereed Journal Papers

- 1. Matalqa, Salam & Mustafa, Suleiman H. (2016). The Effect of Horizontal Table Partitioning on Query Performance. *The International Arab Journal of Information Technology*, 13(1A), Special Issue, pp. 184-189.
- 2. <u>Mustafa, Suleiman H.</u> (2012). Word Stemming for Arabic Information Retrieval: The Case for Light Stemming. *Abhath Al-Yarmouk (Basic Sciences & Engineering series*), 21(1) 2012, pp.123-144
- 3. Al-Ramahi, Mohamma & Mustafa, Suleiman H. N-Gram-Based Techniques for Arabic Text Document Matching: Case Study Courses Accreditation. *Abhath Al-Yarmouk (Basic Sciences & Engineering series)*, 21(1) 2012, pp.123-144
- Mansour, Yaser I. & <u>Mustafa</u>, <u>Suleiman H</u>. (2011). Assessing Internal Software Quality Attributes of the Object-Oriented and Service-Oriented Software Development Paradigms: A Comparative Study. *Journal of Software Engineering and Applications*, 4 (4), 244-252.
- 5. 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.
- 6. 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. <u>Information Processing & Management</u>, 41(4): 819-827. Available online: http://authors.elsevier.com/sd/article/s030645704 000111.
- 8. 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.
- 9. Mustafa, Suleiman H. (2003). A morphology-driven string matching approach to Arabic text searching. *The Journal of Systems and Software*, 67: 77-87.
- 10. Mustafa, Suleiman H. (2002). Coding schemes variation and its impact on string hashing. *Computer Standards & Interfaces*, 24: 473-481.
- 11. Mustafa, Suleiman 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.
- 12. Mustafa, Suleiman 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? <u>The Journal of Systems and Software</u>, 57: 221-226.
- Mustafa, Suleiman H. (2001). A proposed lexical ordering system for a computational Arabic lexicon. <u>Selected Research Papers</u>, 1: 28-45. Appeared also in <u>Proceedings of the 3<sup>rd</sup> Scientific Conference on Computers and Their Applications</u> (SCCA), Applied Science University, Amman, Jordan.
- 14. 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.
- 15. Mustafa, Suleiman H. (1998). Arabic string searching in the context of character code standards and orthographic variations. *Computer Standards & Interfaces*, 20: 31-51.
- 16. Mustafa, Suleiman H. (1996). Sorting problems of the standard Arabic character set. *Computer Standards & Interfaces*, 18: 159-173.
- 17. 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).
- 18. Shaikh, M.E., Mustafa, Suleiman 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
- 19. Mustafa, Suleiman 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, Suleiman H. (1994). A Dictionary-Based Data Compression Technique for Storing Arabic Names. <u>Journal of the Institute of Mathematics and Computer Science: Computer Science Series</u>, 5(2): 161-172
- 21. 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).
- 22. 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).

- 23. Mustafa, Suleiman 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).
- 24. Mustafa, Suleiman H. (1987). Information Technology Transfer to Developing Countries. **Arab Journal of Administration**,11(4): 23-40 (Text in Arabic).
- 25. Mustafa, Suleiman H. (1987). Microcomputer-Based Project Management Systems. <u>Arab</u> <u>Journal of Administration</u>, 11(2): 24-49 (Text in Arabic).

# **Refereed Conference Papers**

- Mustafa, Suleiman H. & Alawneh, Ro'ya (2019). The Impact of Transitive Class Relations on Measuring the Degree of Class Cohesion. The 20<sup>th</sup> International Arab Conference on Information Technology (ACIT'2019). AlAin, United Arab Emirates, 3-5 Dec. 2019.
- Mustafa, Suleiman H. & Bany-Younis, Reham (2016). Query Length and its Impact on Arabic Information Retrieval Performance. Proc. Of the The 17th International Arab Conference on Information Technology (ACIT 2016), Sultan Moulay Slimane University, Beni-Mellal (Moroco), December 6-8, 2016.
- 28. *Al-bataineh*, *Abeer F*. and *Mustafa*, *Suleiman H*. How Jordanian e-Government websites respond to the needs of people with disabilities. **The 7th International Conference on Computer Science and Information Technology (CSIT)**, Amman (Jordan), 2016, IEEE.
- 29. Mustafa, Suleiman H. & Akwanin, Manal (2014). An Investigation of the Impact of Light Stemming Strategies on Arabic Information Retrieval. **The 15<sup>th</sup> International Arab** Conference on Information Technology (ACIT 2014), Nizwa (Oman), 9-11, Dec. 2014.
- 30. Mustafa, Suleiman H. (2013). Towards a Framework for the Curricula of Information Systems in the Arab Universities. **The 14th International Arab Conference on Information Technology (ACIT 2013)**, Khartoum (Sudan), 17-19, Dec. 2013.
- 31. Mustafa, Suleiman H. and Balout, Adel (2009). Mobile Arabic keypad Layout. **The 10th International Arab Conference on Information Technology (ACIT 2009)**, Sanaa (Yemen), University of Science and Technology, 15-17, Dec. 2009.
- 32. Mustafa, Suleiman H. & Al-Zoua'bi, Loai F. S.(2008). Usability of the academic websites of Jordan's universities: An evaluation study. **The 9th International Arab Conference on Information Technology (ACIT 2008)**, Tunisia, Sfax University, 16-18, Dec. 2008.
- 33. 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.
- 34. 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.
- 35. Mustafa, Suleiman 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.
- 36. Mustafa, Suleiman 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*, pp. 216-222. Irbid, Jordan, 13-15 November 2001.
- Mustafa, Suleiman H. (2001). A Proposed Lexical Ordering System for a Computational Arabic Lexicon. *Proceedings of the 3<sup>rd</sup> Scientific Conference on Computers and Their Applications (SCCA)*, pp. 2-10. Applied Science University, Amman, Jordan, Feb. 11-13, 2001.
- 38. Atoum, J.A. & Ibrahim, F.I. & Mustafa, Suleiman H. (1998). Sorting vocalized Arabic words. Proceedings of the IASTED International Conference on Computer Systems and Applications, pp. 191-195. Irbid, Jordan, March 30-April 2, 1998.
- 39. Masoud, F.A. & Shaikh, M.U. & Mustafa, Suleiman 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.
- 40. Mustafa, Suleiman H. (1991). Optical Storage Technology and its Impact on Information Storage and Retrieval. In: **Proceedings of the Second Arab Colloqium on Information Science**. Tunis, 1991, pp. 77-107. [Text in Arabic]

#### HONOURS 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 (Loughbrough, U.K.)
- Harold Lancour Award: offered by the University of Pittsburgh (Pittsburgh, PA, U.S.A.)

## MEMBERSHIP IN PROFISSIONAL ASSOCIATIONS

- Member in Jordan Computer Society (Amman).
- Member in Arab Society for Information Science (Tunis).