Curriculum Vitae of

Mahmoud Moh'd Hamdan Mhashi

Jarash University- Jordan

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Computer Science/ Software Engineering

Academic Rank: Professor

Personal data

Address:	Jubaiha Amman, 11910 Jordan
Phone:	Mobile: +962 79 8653607 Email: mhashi.tabuk@gmail.com
Birth Date & Place:	August 20,1956 Halawa-Ajloun
Citizen:	Jordanian

University Education

Ph.D from University of Liverpool, U.K, Computer Science, 1991 M.S from University of Colorado at Boulder, U.S.A, Computer Science, 1987 B.S from Yarmouk University, Jordan, Computer Science, 1984

Professional Position

Full-Time Position

- 1) Professor, College of Computer Science and Information Technology, Computer Science Department, from March, 2024, Jarash University, Jarash, Jordan.
- 2) Professor, College of Information Technology, Software Engineering Dept. from Sep., 2015 to Sep., 2018, Zarqa University, Zarqa, Jordan.
- 3) Professor, College of Computers & Information Technology, from August 2009 to 2015, University of Tabuk, Tabuk, KSA.
- 4) Chair of Computer Information Systems Department, 2012 to 2015, University of Tabuk, Tabuk, KSA.
- 5) Chair of Information Technology and Computer Science Department, 1994 to 1995, Mu'tah University, Jordan.
- 6) Computer Skills Coordinator for Preparation Year (both Male and Female), from October, 2009 to 2010, University of Tabuk, Tabuk, KSA.
- 7) Professor, Information Technology and Computer Science Department, from August, 2007 to 2009, Mu'tah University, Al-Karak, Jordan.
- 8) (Sabbatical) Associate Professor, Information Technology Department, from September 2006 to August 2007, Amman Al-ahliyyah University, Amman, Jordan.
- 9) Associate Professor, Information Technology and Computer Science Department, from February, 2003 to September, 2006, Mu'tah University, Al-Karak, Jordan.
- 10) Associate Professor, Computer Science, from Sept. 2002 to February, 2003, Al-Zaytoonah University of Jordan, Amman, Jordan.
- 10)(Sabbatical) Associate Professor, Computer Science, from February 2000 to Sept. 2002, Applied Science University, Amman, Jordan.
- ll)Associate Professor, Information Technology and Computer Science Department, from June 21, 1999 to February 2000, Mu'tah University, Al-Karak, Jordan.
- 12)Assistant Professor, Information Technology and Computer Science, February 1992 to June 1999, Mu'tah University, Jordan.

Part-Time Position

- 1. Associate Professor, Computer Science, from October 2000 February 2003, Part-time, Jordan University, Amman, Jordan.
- 2. Associate Professor, Computer Science, from October 2000 to February 2003, Part-time, Institute of Banking Studies, Amman, Jordan.
- 3. Associate Professor, Computer Science, from October, 2000 to October, 2001, Part-time, Princess Sumaya University Collage for Technology, Amman, Jordan
- 4. Associate Professor, Computer Science, Second semester, 2000, Part-time, Al-Balqa' Applied University, Sult, Jordan

5. Associate Professor, System Information Department, second semester, 2001/2003, Part-time, Arab Academy for Financial Study, Jordan

References

- Prof. Roy F. Rada, School of CS&IS, Pace University, Pleasantville, NY10570, U.S.A Email: "Roy Rada", email: <rada@umbc.edu>
- Prof. Hafedh Mill, Department of Computer Science, University of Quebec at Montreal, P.O. Box 8888, Downtown Station, Montreal (Quebec) H3C 3P8 Canada. Email: <mili@aicha.info.uqam.ca>
- 3) Prof. Fabrizio Luccio, Dipartimento di Informatica, Universita di Pisa, Corso Italia, 40,1-56125 Pisa, Italia. Email: <luccio@di.unipi.it>
- Prof. Mohammad S. Obaidat, Depa1tment of Computer Science, Monmouth University, W. Long Branch, NJ 07764, USA. Email: obaidat@monmouth.edu

Activities

Field of Specification: Hypermedia and Algorithms.

Thesis title: The Role of Hierarchies in Discussion and Annotation

Research Interest

Algolithms Hypertext Software Engineering Education Teaching and Learning Information Retrieval Document Creation Hypermedia Computer Support Collaborative Work (CSCW) Computer Support Decision Making (CSDM) String Searching Algorithms (Exact and Approximate) Text Indexing

Collaborative work with document is common; for example, in some scientific fields more than 65% of alticles are jointly written. In collaborative writing, before starting to write a document, people may discuss the general goals and they have to decide about their plan and the work coordination.

Once themes have been identified and initial drafts of the document written, both comments and discussion on the document guide modifications. Every portion of the document may be open to annotation and discussion by any member of the group, or

there may be a decision that needs to be taken about the restrictions on which parts each member can annotate.

Hypermedia supports a human-computer interaction that emphasizes the strength of humans and the strength of computers. Computers are good at storing, retrieving, and managing huge amounts of media. People are good at creating and browsing creation links among media units.

Hypermedia systems are notorious for lacking adequate tools to support the early cognitive phases of writing and the need for tools that help people organize their thoughts and media is a pressing one, as hypermedia systems are witnessing an ever-expanding popularity. So, the problem of providing authors with access paths to the contents of hypermedia must be addressed.

Retrieving information from WWW is important. There is a need for an Information Retrieval (IR) System to interpret the contents of the documents in a collection and rank them according to a degree of relevance to the user query. This interpretation of document content involves extracting syntactic and semantic information from the document text and using this information to match the user information need.

In approximate string matching, one is given a *text* and a *target*. The objective is to find a string within the *text* that is similar to the *target*. In approximate string matching one still open question is how to find the weakest but still significant occurrences of the pattern fast.

Grants and Awards

- 1) Mu'tah University for M.S and PhD 1986 1991.
- 2) Mu'tah University for "Automat ic Capturing Resolution by Using Issue Based Information Systems," 1993.
- 3) Mu'tah University and Italy project for "Gaining Efficiency on the Word-Length String Searching Algorithm," 1996.
- 4) Mu'tah University and Italy project for "A Fast Matching Search Algorithm," 1998.
- 5) Mu' tah University for "The Role of Different Types of Comparisons on String Searching Algorithms" 2005.
- 6) University of Tabuk "An Intelligent and Efficient Matching Algorithm to finding a DNA Patterns". 2011.
- 7) University of Tabuk "An Application of Intelligent Assertion-based Testing In String Matching Algorithms ". 2012.

- 8) University of Tabuk " An Intelligent system development to Improve Learning and Teaching Computer Programming of novice students at Tabuk University". 2013.
- 9) University of Tabuk, "The Effect of Web-Technology on the Improvements of Programming Learning-based evaluation method for Novice Programmers ", 2014

Contribution to the Literature

Refereed Articles in Journals:

- 1) Rada, R., Mhashi, M., & Barlow, J. (1990). "Hierarchical semantic nets support retrieving and generating hypertext", *Information and Decision Technologies*, 16, 117-135.
- 2) Rada, R., Zeb, A., You, G., Antonis, M., & Mhashi, M. (1991) "Collaborative Hype1text and the MUCH System", *Journal of Information Science*, 17, pp. 191-196.
- Mhashi, M., Rada, R., Beck, E., Antonios, M., and Zeb, A. (1992). "Computer-Supported Discussion and Annotation", *Information Processing & Management*, V. 28, No. 5, pp. 589-607.
- 4) Mhashi, M. (1996). "Capturing Resolution and Document Creation by Using an Issue-Based System". *International Journal of Applied Software Technology*, Vol 2, no. 3/4, pp. 177-186.
- 5) Mhashi, M. (1997). "Gaining Efficiency on the Word-Length Stling Searching Algorithm". *CALCOLO*, Vol 34, No. 1, pp. 105-124.
- 6) Mhashi, M., & Rada, R. (1998). "The Role of Prefix, Suffix, and Infix of Words and Sentences on Stling Searching" *Al-MANARAH*, Vol 3, No. 3, AL al-Bayt University, Mafraq, Jordan.
- 7) Mhashi M., and Rada R., (2000), "A Fast Matching Search Algorithm," *Revisita di Informatica*, Vol. XXX(l), pp. 57-63.
- 8) Musbah Aqel, Mahmoud Mhashi, and P. K. Mahanti (2000), "Semi-Dynamic Menus versus Static and Dynamic Menus", *International Journal of Information & Computing Science (IJICS)*, Vol. 3 (2), pp. 72-85.
- Mhashi, M., (2001). "Character-Weight Based K-mismatches and Relevancy" *Al-MANARAH*, Vol 7, No. 1, pp. 95-114, AL al-Bayt University, Mafraq, Jordan.

- 10)Mhashi, M., Abu-Salem, H., & Rada, R (2001). "An Algorithm for Identifying Anchors in Hypertext", DIRASSAT: PURESCIENCE, 28 (1), pp. 1 11.
- 11)Mhashi, M (2003), "A Fast String Matching Algorithm using Double-Length Skip Distances", DIRASSAT:PURE SCIENCE, 30 (1), pp. 84 92.
- 12) Al-Jaber A., Mhashi, M. (2003), "A modified-double-skip algorithm in string searching", M1SE Periodicals, 8 (4), pp. 1 16.
- 13) Mhashi M., Rawasdeh A., and Hummouri A. (2005), "A Fast Approximate String Searching Algorithm", Journal of Computer Science 1 (3), pp. 405 412.
- 14) Mhashi M., (2005) "The Effect of Multiple Reference Characters on Detecting Matches in String Searching Algorithms", Software Practice & Experience 35 (13), pp. 1299 - 315.
- 15) Mhashi M., (2006) Mhashi M., "Relevancy and Approximate String Matching", AMSE Periodicals, 11 (1), pp. 67 84.
- Mhashi M., and Hammouri A (2006) "The Role of Different Types of Compatisons on String Searching Algorithms", Mu'tah Lil-Buhuth wad - Dirasat, 21(2), pp. 83-104
- 17)Hammouri A., Mhashi M., and Rawashdeh A. (2007) " Automatic Capturing Resolution Software System Supports Collaborative Work of Group Discussion", Mu'tah Lil-Buhuth wad - Dirasat, 22(2), pp. 63 - 80.
- 18)Mhashi M., and Alwakeel M, (2010) "New Enhanced Exact String Searching Algorithm" IJCSNS International Journal of Computer Science and Network Security, 10(4), pp. 193-202.
- 19)Mhashi M., (2012) "An Intelligent and Efficient Matching Algorithm to Finding a DNA Pa tter n," International Journal of Information Technology & Computer Science (IJITCS) Journal: Issue: January / February 2012: Advanced in Information System, E-Education & Development 2012, Published by : IISRC Journals.
- 20)Alakeel A., and Mhashi M. (2012) "Application of Intelligent Assertion-Based Testing in String Matching Algorithms," American Journal of Scientific Research, Issue 65, pp. 77-91
- 21) Mhashi M., & Alakeel A., (2013) " Difficulties Facing Students in Learning Computer Programming Skills at Tabuk University," Recent Advances in Modern Educational Technologies, Proceedings of the 12th International Conference on Education and Educational Technology (EDU'13), Motioka City, Iwate, Japan, April 23-25, 2013, pp. 15-24.

Submitted Papers to Journals:

Mhashi M. Abu Shqier M., & Alakeel A., "Difficulties Facing Students when Learning Computer Programming Skills", submitted to *International Journal of Learning Technology (IJLT)*.

Papers under Preparation:

- 1) Mhashi M., "Automatic Indexing in Discussion System that supports Decision Making of G1 oup Discussion".
- 2) Mhashi M., "DNA Sequence and Pattern Pair Index Based Searching Algorithm Support Nanotechnology".
- 3) Mhashi M., & Abu Shquier M., "The Role of Web-Technology on the Improvements of Programming Learning-based evaluation method".

Refereed Articles in Conferences:

- 1) Mhashi, M., Rada, **R., Mill, H.,** You, G., Zeb, A., & Antonis, M. (1990). "Word-frequency based-indexing and authoring," In Computers and Writing: State of the Art. *Kluwer Academic Publishers*, Dordrecht, The Netherlands, pp. 131-148.
- 2) Zeb, A., Antonis, M., You, G., Mhashi, M., & Rada, R. (1991). "MUCH: a UNIX-based Hypertext System", UKUUG: Interfacing UNIX to the user Conference Proceedings, July 15-17, Greenbank Halls, University of Liverpool.
- 3) Mhashi, M., & Hani. T., (1993) "The Role of Computer in Distributing the Inheritance Among the Inheritors According to the Islamic Inheritance Laws". The First National Jordanian Conference on Electrical Engineering, April 19-21, Department of Electrical Engineering, Mu'tah University, Jordan.
- 4) Mhashi, M. & Aboudi S. (1997) " An Experimental Investigation of Interface Design and Evaluation: Static Menus vs. Dynamic Menus", SCS Summer Computer Simulation Conference, July 11-20, Key Bridge Marriott, U.S.A.
- 5) Mhashi, M. (2004) "The Effect of Condition Type on Detecting Matches in Shing Searching Algorithms," ECCO VXII conference: New opportunities in Management Sciences and Information Technology, June 24-26, Beirut, Lebanon.
- 6) Mhashi, M., (2005) "The Performance of the Character-Access on the Checking Phase in String Searching Algorithms," ESSE: International Conference on Enformatika, Systems Sciences and Engineering, November 25-27, Istanbul, Turkey.

- 7) Ali M. Alakeel and Mahmoud M. Mhashi (2011) "Using Assertion-Based Testing in String Search Algorithms," *VALID 2011 : The Third II1ternatio11al Conference on Advances in System Testing al1d Validation Lifecycle,* October 23-29, Barcelona, Spain, ISBN: 978-1-61208-168-7
- 8) Mhashi M., Abu Shquier M., and Alakeel A., (2015) " The Effect of Web-Technology on the Improvements of Programming Learning-based evaluation method for Novice Programmers", accepted for presentation in CSEDU 20157th International Conference on Computer Supported Education.

Teaching and Training

Courses Taught:

- 1) Introduction to Software Engineering.
- 2) Introduction to Computer Science.
- 3) Introduction to Artificial Intelligence.
- 4) Artificial Intelligence Tools
- S) Principles of Programming Languages
- 6) Programming Languages with Basic, VB, FORTRAN, Pascal, Emacs Lisp, C, C++, Java, C#.
- 7) System Programming and Algorithms.
- 8) Advanced File Processing Techniques.
- 9) Database Management.
- 10) Introduction to Hypertext.
- 11)Computer Networks.
- 12) System Analysis and Design.
- 13) Numerical analysis.
- 14)Information retrieval.
- 12) Data Structures (in Pascal, C, C++, or Java)
- 13) Computer Skills
- 14) Introduction to Internet
- 15) Decision Support Systems (DSS) and Intelligent Systems (IS) (M.S course)
- 16) Office Automation
- 17) Computer Ethics
- 18) Management Information System (MIS)
- 19) Information Technologies
- 20) Information Systems
- 21) Operating System
- 22) Computer Organization

I'm ready to teach each one of the following courses:

- 1) AssemblyCobol, Ada, Lisp, and Prolog Programming Languages.
- 2) Computer Elements and Digital Logic.
- 3) Fundamental of Operation Research.
- 4) Finite Automata.

Committee Membership

- ..l... Scientific Council Member, University of Tabuk, 2009 to 2011.
- ..._ Scientific Research Council, University of Tabuk, 2009 to 2012.
- -.. Students' Academic Advisor, University of Tabuk, 2009 to 2015.
- ._ Coordinator for Master's Program in Computer Science, University of Tabuk, 213
- 4- Coordinator and Head of a steering committee: workshop entitled "Computer Education: Quality and Innovation, University of Tabuk, 2013. Member, Examiner Committee, M.S candidate, University of Jordan, Jordan, 2002.
- ...l, Member, Research Committee, Mu'tah University, Jordan, 1997, 2003, 2005.
- Member, Research Committee, Applied Science University, Jordan, 2000 2002. Member, Mu'tah University's School Committee, Mu'tah University, Jordan, 2004-2007.
- -. Committee on Science and Technology 1994
- ★ Visiting Committee on Information Technology 1995 Housing Committee, Mu'tah University, Jordan, 1995
 - 4- President of a private housing association, Amman, Jordan, 1998-2002

Training

- Computer Skills for Health Managers at the Institute of General Management, Jordan
- Computer Skills at the University of Liverpool (U.K), Mu'tah University (Mu'tah, Al-Karak), Applied Science University, Institute of Banking Studies, Princess Sumaya University College for Technology, and Jordan University (Amman).