Omar M.Meqdadi

Curriculum Vitae

Department of Software Engineering
Jordan University of Science and Technology
Irbid, Jordan, 22110
Email: ommeqdadi@just.edu.jo

Education Vitae

Aug 2013	PhD. Computer Science/Software Engineering; Kent State University, Kent, Ohio; GPA 3.981/4 Dissertation title: "Understanding and Identifying Large-Scale Adaptive Changes from Version Histories"
2007	M.S. Computer Engineering; Jordan University of Science and Technology, Jordan; GPA 85.5/100 Thesis Title: "Power Aware AODV Routing Protocol for Bluetooth Scatternet"
2002	B.S. Electrical Engineering/Computer Engineering; Jordan University of Science and Technology, Jordan; GPA 73.3/100

Research Interests

- Software Maintenance and Evolution
- Mining Software Repositories
- Trace-Lab Based Solution Development
- Software Program Slicing
- Information Retrieval for Software Engineering
- Computer Network Routing Protocols

Work Experience

February 2016 – Present	Assistant Professor of Software Engineering , Software Engineering Department, Jordan University of Science and Technology , Jordan
August 2013– January 2016	Assistant Professor of Software Engineering , Computer Science and Software Engineering Department, University of Wisconsin-Platteville, Platteville, Wisconsin, USA, 53818-3099
May 2013 – August 2013	Research Assistant, Computer Science Department, Kent State University, Kent, Ohio, 44242
August 2007 – August 2010	Full-Time Lecturer, Communication and Software Engineering Department, Al-Huson University College, Al-Balqa Applied University, Jordan

October 2002 – August 2007 Computer Lab Supervisor, Computer Science Department, Al-Huson University College, Al-Balqa Applied University, Jordan

Publication

Journal Article:

1. O. Al-Jarrah, **O. Meqdadi** , *Enhanced AODV routing protocol for Bluetooth Scatternet* , Journal of Computers and Electrical Engineering 35 (1), 197-208

2. HW Alomari, ML Collard, JI Maletic, N Alhindawi, **O Meqdadi** , *srcSlice: very efficient and scalable forward static slicing*, Journal of Software: Evolution and Process 26 (11), 931-961

3. N Alhindawi, **O Meqdadi**, B Bartman, JI Maletic , *A tracelab-based solution for identifying traceability links using LSI*, 2013 7th International Workshop on Traceability in Emerging Forms

4. **O Meqdadi**, N Alhindawi, ML Collard, JI, Maletic, *Towards understanding large-scale adaptive changes from version histories*, 2013 IEEE International Conference on Software Maintenance, 416-419

5. HS Migdadi, MH Almomani, MO Abu-Shawiesh**, O Meqdadi** , R*eliability Performance of Improved General Series-Parallel Systems in the Generalized Exponential Lifetime Model*, International Journal of Performability Engineering 15 (6), 1734-1743

6. **O Meqdadi**, N Alhindawi, J Alsakran, A Saifan, H Migdadi, *Mining software repositories for adaptive change commits using machine learning techniques*, Information and Software Technology 109, 80-91

7. N Alhindawi, Z Saraireh,**O Meqdadi**, OM Al-hazaimeh *revising program's internal documentation for developers sustaining*., Journal of theoretical & applied information technology 95 (18)

8. **OM Meqdadi** , *Understanding and identifying large-scale adaptive changes from version histories*, Kent State University

9. M Kharabsheh, **O Meqdadi**, M Alabed, S Veeranki, A Abbadi, S Alzyoud , *A Machine Learning Approach for Predicting Nicotine Dependence*.

Research Activities

- Research Member at Software Development Laboratory <SDML>, Kent State University, Ohio, USA, www.sdml.info . The research program focuses on the construction of methods, tools, and environments to assist in the process of software evolution and maintenance of large-scale systems. Current investigation includes:
    1. Adaptive Maintenance Analysis: The development of a large benchmark data set of adaptive maintenance changes (e.g., move from Qt 3.x to Qt 4.0). The data provides a point of reference for the study of these types of changes. Developed an automated approaches, centered on the LSI and machine learning concepts, to identify adaptive maintenancechanges for existing systems
    2. Software Traceability: a means to uncover a set of traceability links, between source code files and other artifacts, resulting from mining repository commits.
    3. Trace-Lab Solution Development: employ TraceLab to be used in supporting software engineering researches, including classifying change commits, and predicting future

maintenance activities. This research is supported in part by grants from the National Science Foundation NSF grant CCF 08-11-21 and CNS 09-59924.

4. Program Slicing Development: The development of highly efficient lightweight forward static slicing approaches. The developed approaches are based on the XML representation of source code.
5. Develop, maintain and support application programs using Qt platform (using standard C++). These programs are for characterizing software maintenance actions.

- Conference Reviewer

IEEE International Conference on Software Maintenance (ICSM), IEEE International Conference on Program Comprehension (ICPC), IEEE Working Conference on Reverse Engineering (WCRE), ACM Workshop on Mining Software Repositories (MSR)

Software Tools Developed

- srcSlice :

A highly efficient lightweight forward static slicing. The tool is implemented on top of *srcML*, an XML representation of source code. The tool is highly scalable and can generate the slices for all variables of the Linux kernel in approximately 20 min on a typical desktop

Teaching Interests

Software Engineering, Software Maintenance and Re-Engineering , Software Quality , Data structures, Data Communication and Computer Networks, Object-oriented programming, programming in C++, Operating System, Introductory programming, Compiler Principles and Algorithms.

Teaching Philosophy

My experiences as an instructor have helped me a lot to make good understanding of how people learn, which one of the significant aspects of teaching is. It was an interesting experience when I was trying to explain how software helps people in real life. The key of success is to relate to the audience by starting from what they know and building upon it.

In classroom, my main goal is to encourage independent thinking and analytical reasoning to augment their problem solving skills, thus encouraging them to not just memorize. This prompts classroom discussions which are very useful and led to several intellectually stimulating questions/arguments which are not easy to answer. A teacher should be totally involved with the class, dedicated to his/her students and be prepared to devote time and energy for them. Love for teaching evokes passion, and dedication.

My teaching philosophy based in three main points. Constantly encourage my students to discuss and develop their capabilities; to use education research to support my improvement efforts; and a teacher is that of a leader where you have to show the path, motivate, encourage, and lead by example.

Teaching Experience

Course Title	Task	Terms/Dates	Institution
System Analysis and Design	Instructor	Fall 2016, Spring 2016, Summer 2016, Fall 2017, Spring 2017, Summer 2017, Fall 2018, Spring 2018, Summer 2018,	Jordan University of science and Technology
Requirement Engineering	Instructor	Fall 2018	Jordan University of science and Technology

Programming in Java	Instructor	Fall 2017	Jordan University of science and Technology
Introduction to Software **Engineering**	Instructor	Fall 2014	University of Wisconsin-Platteville
Programming in C++	Instructor	Fall 2014	University of Wisconsin-Platteville
Computer Architecture and Operating Systems	Instructor	Spring 2014	University of Wisconsin-Platteville
Software Engineering Module	Instructor	Spring 2014	University of Wisconsin-Platteville
Introduction to Software Engineering	Instructor	Fall 2013	University of Wisconsin-Platteville
Data Communicationand Computer Networks	Instructor	Fall 2013	University of Wisconsin-Platteville
Data Structure and Algorithms	Instructor	Fall 2007-Spring 2010	Al-Balqa Applied university/Al-Huson College
Operating Systems	Instructor	Fall 2007-Spring 2010	Al-Balqa Applied university/Al-Huson College
Software Engineering	Instructor	Fall 2007-Spring 2010	Al-Balqa Applied university/Al-Huson College
C++ Programming Language	Instructor	Fall 2007, Fall 2008, Fall 2009	Al-Balqa Applied university/Al-Huson College
Microprocessor	Lab Instructor	Fall 2008	Al-Balqa Applied university/Al-Huson College
C++ Programming Language	Lab Instructor	Fall 2006	Al-Balqa Applied university/Al-Huson College
Computer Skills	Instructor	Fall 2002-Fall 2005	Al-Balqa Applied university/Al-Huson College
Visual Basic	Instructor	Summer 2003	Al-Balqa Applied university/Al-Huson College

Master Students Directing (current)

- Chinmay Shah, Software Engineering Major, Department of Computer Science and Software Engineering , University of Wisconsin-Platteville,Wisconsin , USA.

Outreach Activities

- Academic advisor for undergraduate students (advising 20 advisees), Computer Science and Software Engineering Department, University of Wisconsin-Platteville, USA.
- Member of exams committee of several computer science courses at Al-Balqa Applied University/Jordan, Department of Computer Science.
- Developer of several Qt framework based software applicationsfor registration unit and examination center at Al-Balqa Applied University/Jordan.
- Hardware and software maintenance at Al-Balqa Applied University/Jordan, Computer Center Unit.

References

∑ Omar M. Jarrah , Professor of Computer Engineering, Jordan University of Science and Technology, Irbid 22110 Box 3030, Jordan Tel. : +962-2-7201010, Fax : +962-2-7201033 E-mail: aljarrah@just.edu.jo Home page: http://www.just.edu.jo/~aljarrah

∑ Jonathan I. Maletic , Full Professor of Computer Science, Computer Science Department, Kent State University, Kent OH 44242, E-mail: jmaletic@kent.edu Home page: http://www.cs.kent.edu/~jmaletic/

∑ Feodor F. Dragan , Full Professor of Computer Science, Computer Science Department, Kent State University, Kent OH 44242, E-mail: dragan@cs.kent.edu Home page: http://www.cs.kent.edu/~dragan/

∑ Micheal L. Collard , Assistant Professor of Computer Science, Computer Science Department, The University of Akron, Akron OH , E-mail: collard@uakron.edu Home page: http://www.cs.uakron.edu/~collard/

∑ Yahya S. Khresat , Professor of Electrical and Electronics Engineering, Balqa' Applied University, Dean of Al-Huson University College, Irbid- Al-Huson 21510 Box: 50, Jordan Tel. : + 962 (0) 2 7010400 ext. 369, Fax : + 962 (0) 2 7010397 E-mail: yahya@huson.edu.jo