Maen M. Hammad, PhD

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Department of Software Engineering
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Education

- Ph.D. Computer Science, Kent State University– USA , 2010
- M.S. Computer and Information Sciences, Al-Yarmouk University– Jordan , 2004
- B.S. Computer Science, The Hashemite University– Jordan, 2002

Academic and Professional Experience

- Vice Dean of the IT Faculty, The Hashemite University, 2015-present.
- Associate Professor, Department of Software Engineering, The Hashemite University, since September 2015.
- Assistant Professor. Department of Software Engineering, The Hashemite University, 2010-2015.
- Chair of Software Engineering Department, The Hashemite University, 2010-2013.
- Teacher Assistant. Department of Computer Science, Kent State University, USA 2008 - 2010.
- Instructor. Department of Computer Science, The Hashemite University, 2004-2006

Research Interests & Specializations

- Software engineering with focus on software evolution, program comprehension, software maintenance and mining software repositories.

Publications and Scholarly Work

Journal Papers (refereed)

1. Mustafa Hammad, **Maen Hammad**, Batool Horani, Sari Awwad **, "**Mining Historical Changes to Predict Software Evolution", *International Journal of Advanced Intelligence Paradigms, (Accepted for publication).*

2. **Maen Hammad**, Haneen Hijazi, Mustafa Hammad and Ahmed Otoom, "Mining Expertise of Developers from Software Repositories", *International Journal of Computer Applications in Technology*, Vol. 62, No. 3, pp. 227-239, 2020.

3. Ahmed Fawzi Otoom, Alaa Alzaben, Razan Tlailan and **Maen Hammad**, "Software Effort Classification with Multilayer Perceptron Neural Networks", *International Journal of Advanced Trends in Computer Science and Engineering*, Vol. 9, No. 2, pp. 1678 – 1689, 2020.

4. **Maen Hammad**, Ahmed Fawzi Otoom, Mustafa Hammad, Nadera Al-Jawabreh, Rawan Abu Seini, "Multiview Visualization of Software Testing Results", *International Journal of Computing and Digital Systems*, Vol. 9, No. 1, pp. 51-59, 2020.

5. Otoom, A.F.; AL Kateb, G.; **Hammad, M**.; Sweis, R.J.; Hijazi, H. "Success Factors Importance Based on Software Project Organization Structure". *Information*, Vol. 10, No. 12, 2019.

6. **Maen Hammad** and Sabah Alsofriya, "Visualizing Code Bad Smells", *International Journal of Advanced Computer Science and Applications*, Vol. 10, No. 5, 2019, pp. 281-286.

7. Ahmed F. Otoom, Doaa Al-Shdaifat, **Maen Hammad**, Emad E. Abdallah, Ashraf Aljammal, "Automated labelling and severity prediction of software bug reports", International Journal of Computational Science and Engineering, Vol. 19, No. 3, 2019, pp. 334 – 342.

8. Mustafa Hammad, Mohammad Bsoul, **Maen Hammad**, Muna Al-Hawawreh, "An Efficient Approach for Representing and Sending Data in Wireless Sensor Networks", *Journal of Communications*, Vol. 14, No. 2, 2019, pp. 104-109.

9. **Maen Hammad**, Ruba Alzyoudi, Ahmed F. Otoom, "Automatic clustering of bug reports", *International Journal of Advanced Computer Research*, Vol. 8, No. 39, 2018, pp. 313-323.

10. **Maen Hammad**, Asma Labadi, "Automatic Detection of Bad Smells from Code Changes", *International Review on Computers and Software*, Vol. 11, No. 11, 2016, pp. 1016-1027.

11. **Maen Hammad**, Anas Abuljadayel, and Mohammad Khalaf, "Summarizing Services of Java Packages," *Lecture Notes on Software Engineering,* Vol. 4, No. 2, 2016, pp. 129-132.

12. **Maen Hammad** and Fatima Abu-Zaitoun, "Visualizing the Evolution of Subsystems", *International Review on Computers and Software*, Vol. 10, No. 8, 2015, pp. 875-882.

13. Mohammad Bsoul, Yousef Kilani, **Maen Hammad**, Emad E. Abdallah, Ayoub Alsarhan, "An Index-Based Approach for Wireless Sensor Networks", *Wireless Personal Communications,* Vol. 82, No. 4, 2015, pp. 2185-2197.

14. Ahmed F. Otoom, Emad E. Abdallah, **Maen Hammad**, "Breast Cancer Classification: Comparative Performance Analysis of Image Shape-Based Features and Microarray Gene Expression Data", *International Journal of Bio-Science and Bio-Technology,* Vol. 7, No. 2, 2015, pp. 37-46.

15. **Maen Hammad**, Mustafa Hammad, Hani Bani-Salameh, Ebaa Fayyoumi, "Measuring Developers' Design Contributions in Evolved Software Projects", *Journal of Software,* Vol. 9, No. 12, 2014, pp. 3005-3011.

16. Otoom, A.F., Abdallah, E.E., **Hammad, M**., Bsoul, M. and Abdallah, A.E., "An intelligent system for author attribution based on a hybrid feature set", *International Journal of Advanced Intelligence Paradigms*, Vol. 6, No. 4, 2014, pp. 328–345.

17. **Maen Hammad**, Somia Abufakher, Mustafa Hammad, "A Visualization Approach for Bug Reports in Software Systems", *International Journal of Software Engineering and Its applications*, Vol. 8, No. 10, 2014, pp. 37-46.

18. Mohammad Bsoul, Ayoub Alsarhan, Ahmed Otoom, **Maen Hammad**, Ahmad Al-Khasawneh, "A dynamic replication strategy based on categorization for Data Grid", *Multiagent and Grid Systems – An International Journal*, Vol. 10, No. 2, 2014, pp. 109-118.

19. **Maen Hammad**, Mustafa Hammad, Ahmed F. Otoom, Mohammad Bsoul, "Detecting Breaks in Design Patterns from Code Changes", *Journal of Software,* Vol. 9, No. 6, 2014, pp. 1485-1493.

20. **Maen Hammad**, Mustafa Hammad, Mohammad Bsoul, "An Approach to Automatically Enforce Object Oriented Constraints", *International Journal of Computer Applications in Technology*, Vol. 49, No. 1, 2014, pp. 50-59.

21. Hani Bani-Salameh, Sanaa Alwidian , **Maen Hammad**, Fadi Wedyan, "An Evaluation Model for Social Development Environments", *International Journal of Software Engineering and Its Applications*, Vol. 8, No. 1, 2014, pp. 323-336.

22. **Maen Hammad**, Mustafa Hammad, Hani Bani-Salameh, "Identifying Designers and their Design Knowledge", *International Journal of Software Engineering and Its Applications*, Vol. 7, No. 6, 2013, pp. 277-288.

23. Hani Bani-Salameh, C. Jeffery, **M. Hammad**, "Developers' Social Networks--Tools Analysis Based on the 3Cs Model", *International Journal of Networking and Virtual Organisations*, Vol. 13, No. 2, 2013, pp 159–175.

24. Kagdi, H., Gethers, M., Poshyvanyk, D., **Hammad, M.** "Assigning Change Requests to Software Developers", *Journal of Software: Evolution and Process*, Volume 24, Issue 1, pages 3–33, January 2012..

25. **Hammad**, **M**., Collard, M.L., Maletic, J. I., "Automatically Identifying Changes that Impact Code-to-Design Traceability During Evolution", *Software Quality Journal*, Vol. 19, No. 1, March 2011, pp. 35-64. (Invited submission to special issue on Best Papers from ICPC 2009).

26. Al-Taani, A., and **Hammad**, **M**., "Recognition of On-line Handwritten Arabic Digits Using Structural Features and Transition Network", *Informatica, An International Journal for Computing and Informatics*, Vol. 32, No. 3, October 2008, pp. 275-281.

27. M. Al-Kabi, G. Kanaan, R. Al-Shalabi, N. Zaghal, Z. Salah, **M. Hammad**,"Stem-Based Query Expansion for Arabic Corpus, " *Abhath Al-Yarmouk Journal: Basis Sci. & Eng.*, Vol. 18, No.2, Yarmouk University, Jordan, 2009, pp.227 - 246

Conferences and Workshops (refereed)

1. Ahmed F. Otoom, Sara Al-Jdaeh, **Maen Hammad**, "Automated Classification of Software Bug Reports", in Proceedings of the 9th International Conference on Information Communication and Management (ICICM'19), Prague, Czech Republic, 2019, pp. 17-21.

2. **Maen Hammad**, "Design Observer: A Framework to Monitor Design Evolution", in Proceedings of the 14th International Conference on Information Technology: New Generations (ITNG'17), Las Vegas, USA, April 10-12, 2017, pp. 635-640.

3. AF Otoom, **M. Hammad**, N Al-Jawabreh, RA Seini, "Visualizing Testing Results for Software Projects", in Proceedings of the 17th International Arab Conference on Information Technology (ACIT'16), Morocco, 2016.

4. **Maen Hammad**, Rajaa Abu-Wandi and Haneen Aydeh, "Automatic Reverse Engineering of Classes' Relationships", in Proceedings of the 13th International Conference on Information Technology: New Generations (ITNG'16), Las Vegas, USA, April 11-13, 2016, pp. 1267-1272.

5. Ahmed Otoom, Doaa Al-Shdaifat, **Maen Hammad** and Emad Abdallah, "Severity Prediction of Software Bugs", in Proceedings of the 7th International Conference on Information and Communication Systems (ICICS'16), Irbid, Jordan, April 5-7, 2016, pp.

6. Dragan, N., Collard, M.L., **Hammad, M**., Maletic, J.I., "Using Stereotypes to Help Characterize Commits", in Proceedings of the 27th IEEE International Conference on Software Maintenance (ICSM'11), Williamsburg, VA, Sep 27-29, 2011, pp. 520-523.

7. **Maen Hammad**, Michael L. Collard, Jonathan I. Maletic, "Measuring Class Importance in the Context of Design Evolution", in Proceedings of the 18th IEEE International Conference on Program Comprehension (ICPC'10), Braga, Portugal, June 30 - July 2, 2010, pp. 148-151.

8. **Maen Hammad**, Michael L. Collard, and Jonathan I. Maletic, "Automatically Identifying Changes that Impact Code-to-Design Traceability", in Proceedings of the 17th IEEE International Conference on Program Comprehension (ICPC'09), Vancouver, Canada, May 17-19, 2009, pp. 20-29.

9. Kagdi, H., **Hammad, M**., and Maletic, J. I., "Who Can Help Me with this Source Code Change?", in Proceedings of the 24th IEEE International Conference on Software Maintenance (ICSM'08), China, Sept. 28 - Oct. 4, 2008, pp. 157-166.

Dissertation
- "Supporting Code-Design Consistency during Software Evolution", PhD dissertation, Kent State University, USA, 2010.

Teaching Experience (courses taught)

- Software Maintenance and Evolution (Graduate course).
- Software Design and Architecture (Graduate course).
- Special Topics-System Reengineering (Graduate course).
- Research Project (Graduate course)
- Software Design.
- Software Engineering.
- Object Oriented Software Development.
- Information Security.
- Data Structure.
- Object Oriented Programming using JAVA.
- Object Oriented Programming using C++.
- Visual Programming using VB.NET.
- Operating Systems.

Master Students

- Asma Labadi, thesis title: "Automatic Detection of Bad Smells from Code changes", 2016
- Ruba Zudi, thesis title : "Clustering Bug Reports to Support Software Corrective Maintenance", 2018
- Reema Freihat, thesis title: "Visualization of Aspect-Oriented Programs", 2019

University, Faculty and Department Committees

- Member of the graduate studies committee at university.
- Head the class schedule committee at faculty.
- Head of the graduate studies committee at faculty.
- Head of the hiring and promotion committee at faculty.
- Head of the study plans committee at department.
- Head of the exams committee at faculty.
- Head of the graduation projects committee at faculty.
- Member of the IT faculty council.
- Member of the scientific and research committee at faculty.
- Member of the students' investigation committee at faculty.